

HARVARD UNIVERSITY.



LIBRARY

OF THE

MUSEUM OF COMPARATIVE ZOOLOGY

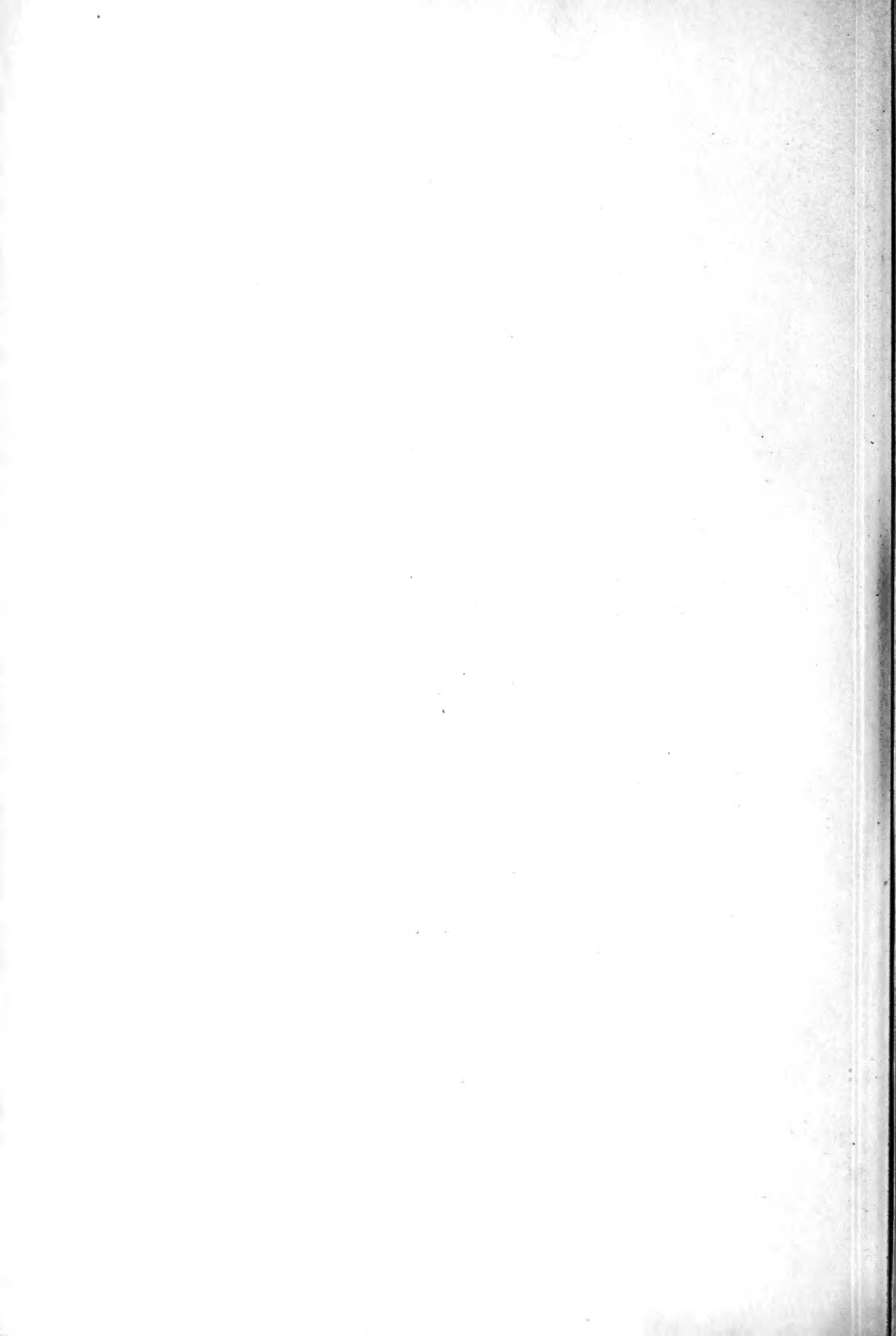
57.921

GIFT OF

Samuel Henshaw.

October 29, 1921.

OCT 29 1921





COLOURED FIGURES
OF THE
LIBRARY
BIRDS OF THE BRITISH ISLANDS.

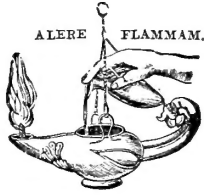
ISSUED BY
LORD LILFORD, F.Z.S., ETC.,
PRESIDENT OF THE BRITISH ORNITHOLOGISTS' UNION.

VOLUME VII.

LONDON:
R. H. PORTER, 7 PRINCES STREET, CAVENDISH SQUARE W

1885—1897.
5

THE
SOCIETY OF
CHEMISTS

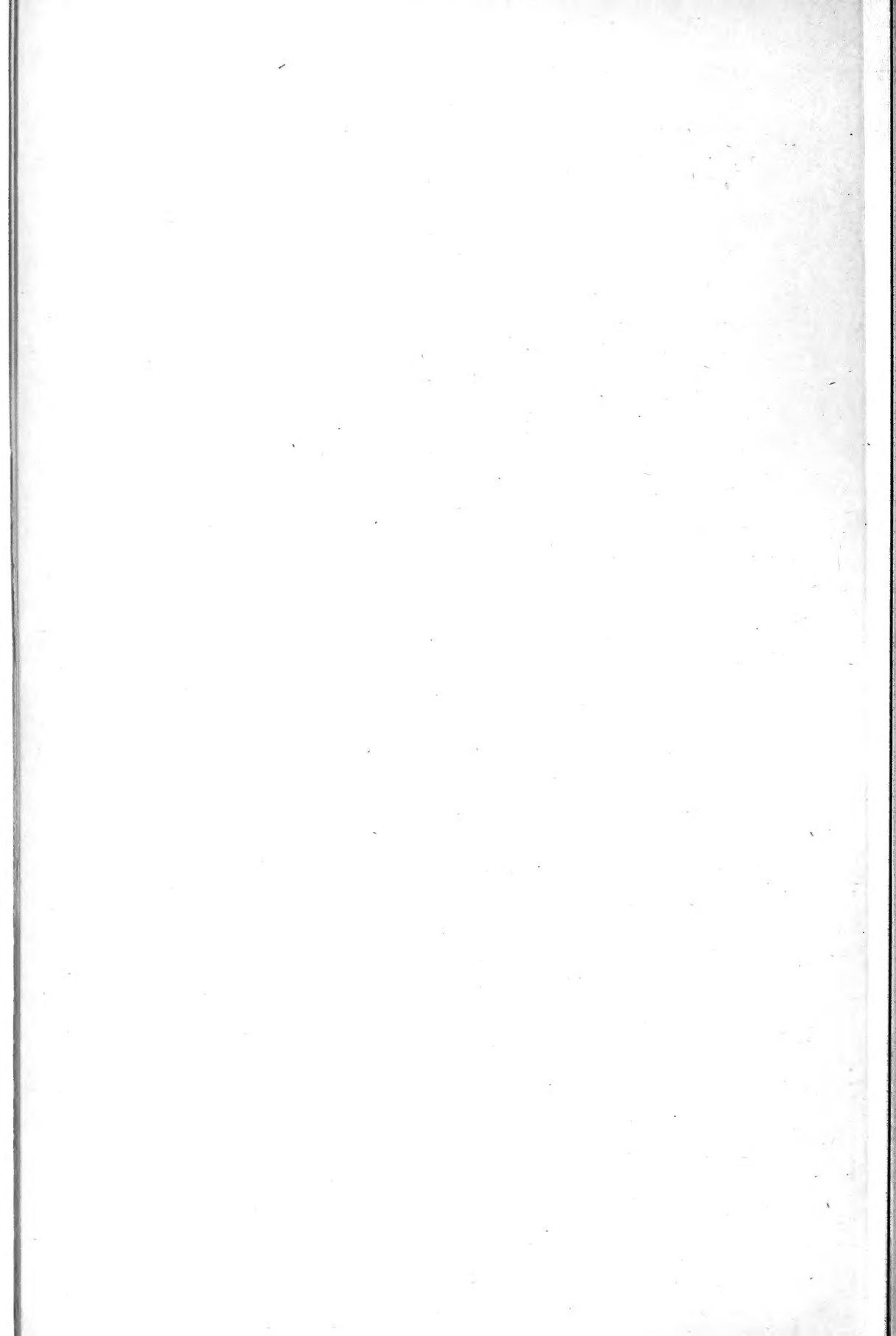


PRINTED BY TAYLOR AND FRANCIS,
RED LION COURT, FLEET STREET.

CONTENTS OF VOLUME VII.

— * —

	Page
TITLEPAGE	1
CONTENTS	iii
COLLATION OF EDITIONS	v
LIST OF PLATES	vii
PLATES	I.-LXI.
TEXT	1-144
APPENDIX	145
INDEX	149



COLLATION OF EDITIONS.

THIS Work was issued in two Editions: the First commenced October 1885, and the Second April 1891, both Editions ending simultaneously; the Plates in Volume VII. appeared as follows:—

	1st Edition.		2nd Edition.	
	PART		PART	
1. CORMORANT	XXII.	Dec. 1892.	XVIII.	Dec. 1892.
2. GREEN CORMORANT OF SHAG.	"	"	"	"
3. GANNET	XII.	Jan. 1890.	XXVII.	Aug. 1894.
4. COMMON HERON	VIII.	Nov. 1888.	VIII.	Aug. 1891.
5. PURPLE HERON	XI.	Sept. 1889.	XI.	Feb. 1892.
6. GREAT WHITE HERON ..	XX.	Dec. 1891.	XIV.	July 1892.
7. LITTLE EGRET	XXI.	Aug. 1892.	XV.	Aug. 1892.
8. BUFF-BACKED HERON ..	XIII.	Mar. 1890.	XIII.	June 1892.
9. SQUACCO HERON	XXIV.	June 1893.	XXIII.	July 1893.
10. GREEN HERON	XXXV.	Nov. 1897.	XXXV.	Nov. 1897.
11. NIGHT-HERON	VII.	Sept. 1888.	VII.	July 1891.
12. LITTLE BITTERN	XIX.	July 1891.	XII.	May 1892.
13. BITTERN	VII.	Sept. 1888.	VII.	July 1891.
14. AMERICAN BITTERN ...	XXIV.	June 1893.	XXIII.	July 1893.
15. WHITE STORK	XXIII.	Mar. 1893.	XX.	Mar. 1893.
16. BLACK STORK	XX.	Dec. 1891.	XIV.	July 1892.
17. GLOSSY IBIS	XXVII.	Dec. 1893.	XXVI.	Dec. 1893.
18. SPOONBILL	XII.	Jan. 1890.	XXVII.	Aug. 1894.
19. FLAMINGO	XXXIII.	Nov. 1896.	XXXIII.	Nov. 1896.
20. GREY LAG GOOSE	XXVI.	Nov. 1893.	XXV.	Nov. 1893.
21. WHITE-FRONTED GOOSE	X.	Mar. 1889.	X.	Dec. 1891.
22. BEAN-GOOSE	XXVI.	Nov. 1893.	XXV.	Nov. 1893.
23. PINK-FOOTED GOOSE ..	XXV.	Oct. 1893.	XXIV.	Oct. 1893.
24. SNOW-GOOSE	XXVI.	Nov. 1893.	XXV.	Nov. 1893.
25. RED-BREASTED GOOSE ..	XXI.	Aug. 1892.	XV.	Aug. 1892.
26. BARNACLE GOOSE	XI.	Sept. 1889.	XI.	Feb. 1892.

	1st Edition.		2nd Edition.	
	PART		PART	
27. BRENT GOOSE	XXIV.	June 1893.	XXIII.	July 1893.
28. MUTE SWAN	XXXV.	Nov. 1897.	XXXV.	Nov. 1897
29. COMMON WILD SWAN OF WHOOPER.	XXV.	Oct. 1893.	XXIV.	Oct. 1893.
30. BEWICK'S SWAN	"	"	"	"
31. RUDDY SHELD-DUCK . .	XX.	Dec. 1891.	XIV.	July 1892.
32. SHELD-DRAKE	XXVI.	Nov. 1893.	XXV.	Nov. 1893.
33. MALLARD OF WILD DUCK	VIII.	Nov. 1888.	VIII.	Aug. 1891.
34. GADWALL	XV.	July 1890.	XXI.	May 1893.
35. SHOVELLER	X.	Mar. 1889.	X.	Dec. 1891.
36. PINTAIL	XIII.	Mar. 1890.	XIII.	June 1892.
37. TEAL	VIII.	Nov. 1888.	VIII.	Aug. 1891.
38. AMERICAN GREEN- WINGED TEAL.	XXXV.	Nov. 1897.	XXXV.	Nov. 1897.
39. GARGANEY OF SUMMER TEAL.	XIII.	Mar. 1890.	XIII.	June 1892.
40. AMERICAN BLUE-WINGED TEAL.	XXXV.	Nov. 1897.	XXXV.	Nov. 1897.
41. WIGEON	XV.	July 1890.	XXI.	May 1893.
42. AMERICAN WIGEON . . .	XXXIII.	Nov. 1896.	XXXIII.	Nov. 1896.
43. RED-CRESTED POCHARD .	X.	Mar. 1889.	X.	Dec. 1891.
44. POCHARD	XIII.	Mar. 1890.	XIII.	June 1892.
45. WHITE-EYED POCHARD .	XIV.	May 1890.	XVI.	Nov. 1892.
46. SCAUP	XV.	July 1890.	XXI.	May 1893.
47. TUFTED DUCK	XIII.	Mar. 1890.	XIII.	June 1892.
48. GOLDEN-EYE	XI.	Sept. 1889.	XI.	Feb. 1892.
49. BUFFEL-HEADED GOLDEN- EYE.	XXX.	Feb. 1895.	XXX.	Feb. 1895.
50. LONG-TAILED DUCK . . .	"	"	"	"
51. HARLEQUIN DUCK	"	"	"	"
52. COMMON EIDER	XXII.	Dec. 1892.	XVIII.	Dec. 1892.
53. KING EIDER	XXX.	Feb. 1895.	XXX.	Feb. 1895.
54. STELLER'S EIDER	XXXI.	June 1895.	XXXI.	June 1895.
55. COMMON SCOTER	XXII.	Dec. 1892.	XVIII.	Dec. 1892.
56. VELVET SCOTER	"	"	"	"
57. SCRF-SCOTER	XXXI.	June 1895.	XXXI.	June 1895.
58. GOOSANDER	XXIII.	Mar. 1893.	XX.	Mar. 1893.
59. COMMON OF RED- BREASTED MERGANSER.	XXI.	Aug. 1892.	XV.	Aug. 1892.
60. SMEW	XIX.	July 1891.	XII.	May 1892.
61. HOODED MERGANSER . .	XXXI.	June 1895.	XXXI.	June 1895.

LIST OF PLATES

IN VOLUME VII.

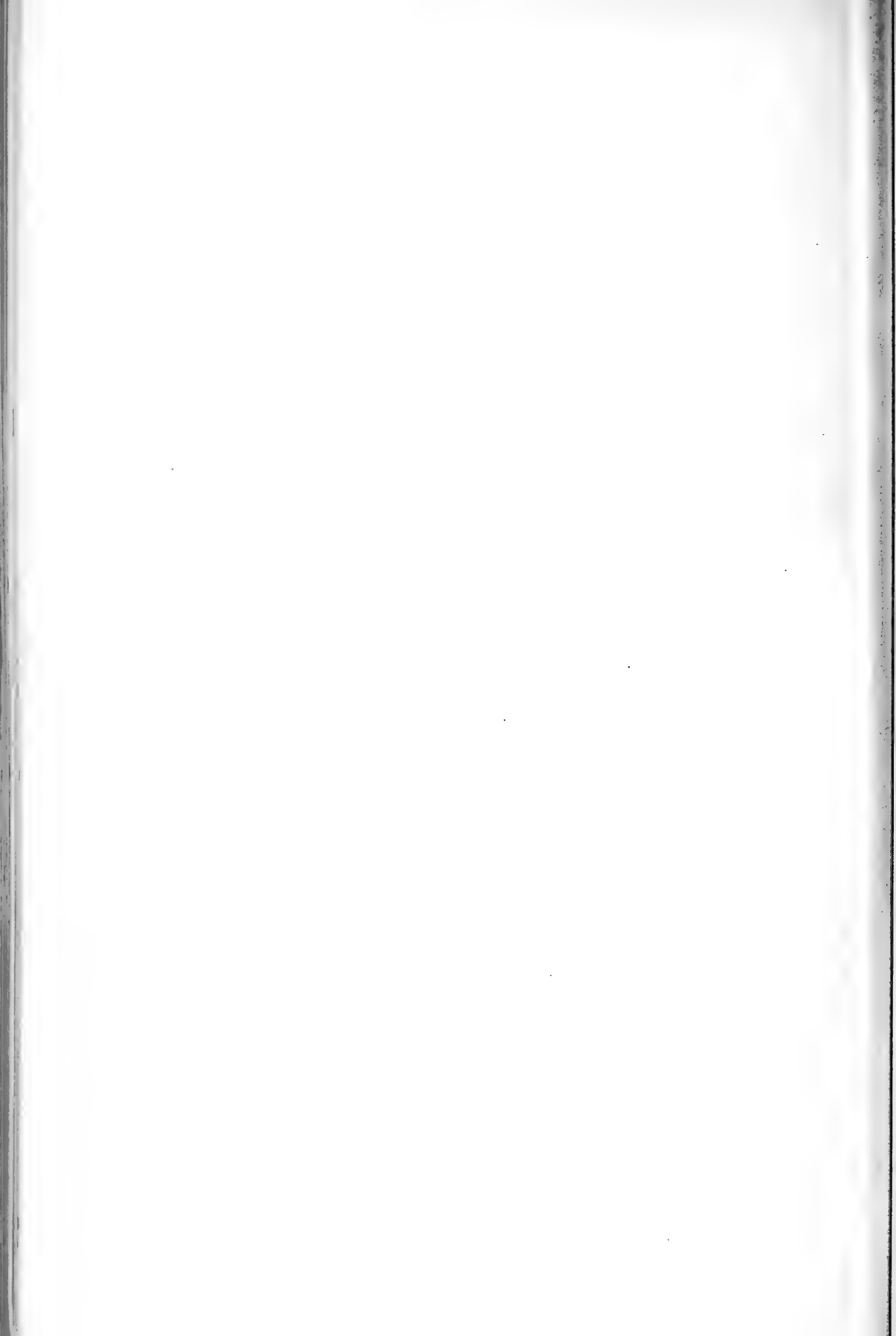
	To face page
1. CORMORANT. <i>Phalacrocorax carbo</i> (Linn.) . . .	1
2. GREEN CORMORANT OF SHAG. <i>Phalacrocorax gra-</i> <i>culus</i> (Linn.)	5
3. GANNET. <i>Sula bassana</i> (Linn.)	9
4. COMMON HERON. <i>Ardea cinerea</i> , Linn.	12
5. PURPLE HERON. <i>Ardea purpurea</i> , Linn.	13
6. GREAT WHITE HERON. <i>Ardea alba</i> , Linn.	15
7. LITTLE EGRET. <i>Ardea garzetta</i> , Linn.	19
8. BUFF-BACKED HERON. <i>Ardea bubulcus</i> , Audouin .	23
9. SQUACCO HERON. <i>Ardea ralloides</i> , Scop.	25
10. GREEN HERON. <i>Ardea virescens</i> , Linn.	30
11. NIGHT-HERON. <i>Nycticorax griseus</i> (Linn.) . . .	32
12. LITTLE BITTERN. <i>Ardetta minuta</i> (Linn.) . . .	33
13. BITTERN. <i>Botaurus stellaris</i> (Linn.)	38
14. AMERICAN BITTERN. <i>Botaurus lentiginosus</i> (Mon- <i>tagu)</i>	39
15. WHITE STORK. <i>Ciconia alba</i> , Bechstein	41
16. BLACK STORK. <i>Ciconia nigra</i> (Linn.)	45
17. GLOSSY IBIS. <i>Plegadis falcinellus</i> (Linn.)	47
18. SPOONBILL. <i>Platalea leucorodia</i> , Linn.	51
19. FLAMINGO. <i>Phænicopterus roseus</i> , Pall.	54

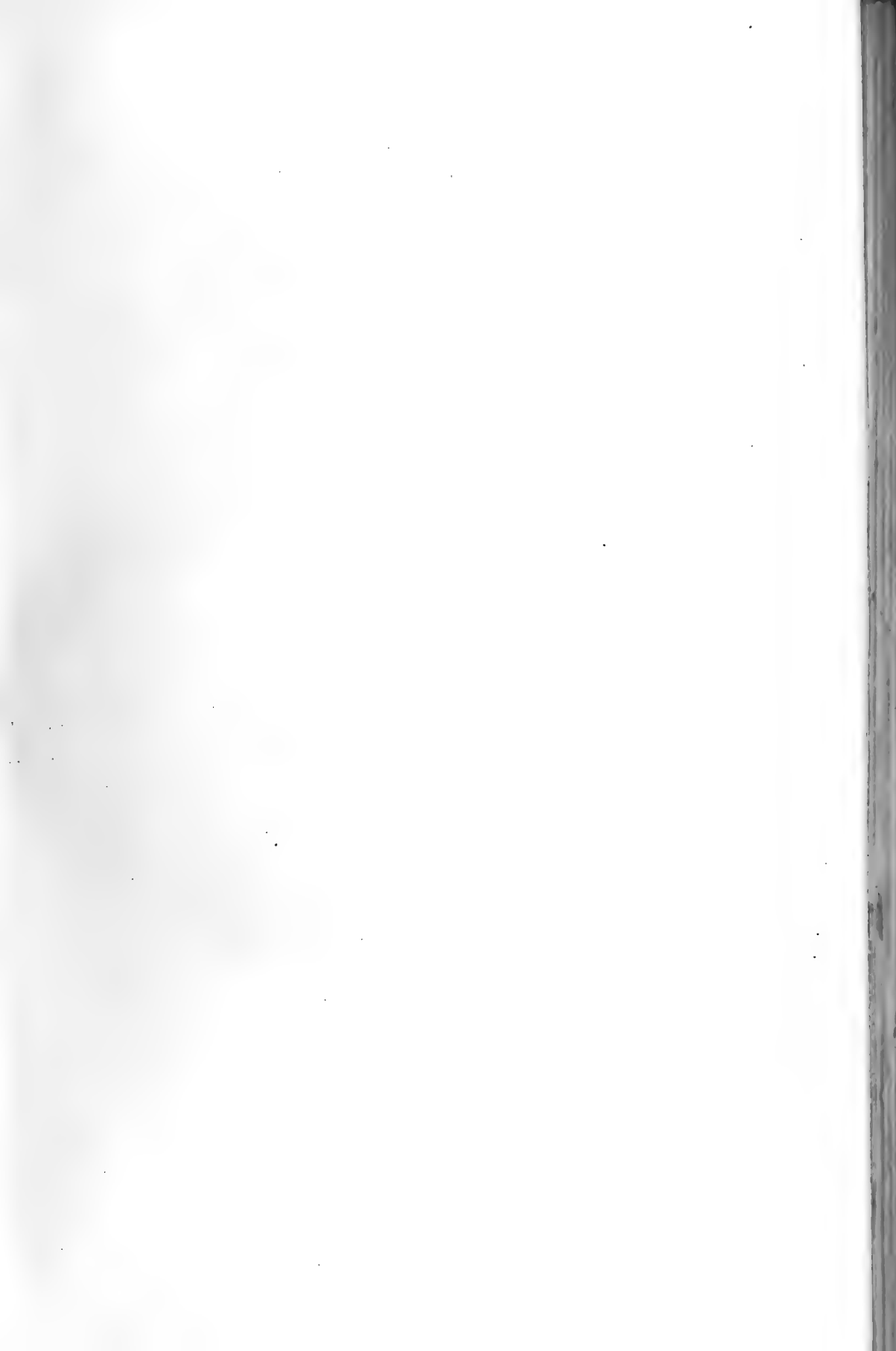
	To face page
20. GREY LAG GOOSE. <i>Anser cinereus</i> , Meyer . . .	55
21. WHITE-FRONTED GOOSE. <i>Anser albifrons</i> (Scop.).	60
22. BEAN-GOOSE. <i>Anser segetum</i> (J. F. Gmelin) . .	61
23. PINK-FOOTED GOOSE. <i>Anser brachyrhynchus</i> , Baillon	63
24. SNOW-GOOSE. <i>Chen hyperboreus</i> (Pallas) . . .	66
25. RED-BREASTED GOOSE. <i>Bernicla ruficollis</i> (Pall.) .	67
26. BARNACLE GOOSE. <i>Bernicla leucopsis</i> (Bechst.) .	69
27. BRENT GOOSE. <i>Bernicla brenta</i> (Pall.)	71
28. MUTE SWAN. <i>Cygnus olor</i> (J. F. Gmelin) . . .	74
29. COMMON WILD SWAN OF WHOOPER. <i>Cygnus musicus</i> (Bechst.)	75
30. BEWICK'S SWAN. <i>Cygnus bewicki</i> , Yarr. . . .	79
31. RUDDY SHELD-DUCK. <i>Tadorna casarca</i> (Linn.) .	81
32. SHELD-DRAKE. <i>Tadorna cornuta</i> (S. G. Gmelin).	83
33. MALLARD OF WILD DUCK. <i>Anas boschas</i> , Linn. .	86
34. GADWALL. <i>Anas strepera</i> , Linn.	87
35. SHOVELLER. <i>Anas clypeata</i> , Linn.	90
36. PINTAIL. <i>Anas acuta</i> , Linn.	92
37. TEAL. <i>Anas crecca</i> , Linn.	94
38. AMERICAN GREEN-WINGED TEAL. <i>Anas caroli- nensis</i> , J. F. Gmelin	96
39. GARGANEY OF SUMMER TEAL. <i>Anas circia</i> , Linn..	98
40. AMERICAN BLUE-WINGED TEAL. <i>Anas discors</i> , Linn.	100
41. WIGEON. <i>Mareca penelope</i> (Linn.)	101
42. AMERICAN WIGEON. <i>Mareca americana</i> (J. F. Gmelin)	104
43. RED-CRESTED POCHARD. <i>Fuligula rufina</i> (Pall.) .	106
44. POCHARD. <i>Fuligula ferina</i> (Linn.)	107
45. WHITE-EYED POCHARD. <i>Fulica nyroca</i> (Güld.) .	109
46. SCAUP. <i>Fuligula marila</i> (Linn.)	112
47. TUFTED DUCK. <i>Fuligula cristata</i> (Leach) . . .	113
48. GOLDEN-EYE. <i>Fuligula clangula</i> (Linn.) . . .	115
49. BUFFEL-HEADED GOLDEN-EYE. <i>Clangula albeola</i> (Linn.)	117

	To face page
50. LONG-TAILED DUCK. <i>Harelda glacialis</i> (Linn.) . . .	119
51. HARLEQUIN DUCK. <i>Cosmonetta histrionica</i> (Linn.).	121
52. COMMON EIDER. <i>Somateria mollissima</i> (Linn.) . . .	123
53. KING EIDER. <i>Somateria spectabilis</i> (Linn.) . . .	125
54. STELLER'S EIDER. <i>Somateria stelleri</i> (Pall.) . . .	127
55. COMMON SCOTER. <i>Edemia nigra</i> (Linn.) . . .	129
56. VELVET SCOTER. <i>Edemia fusca</i> (Linn.) . . .	133
57. SURF-SCOTER. <i>Edemia perspicillata</i> (Linn.) . . .	135
58. GOOSANDER. <i>Mergus merganser</i> , Linn.	137
59. COMMON OR RED-BREASTED MERGANSER. <i>Mergus</i> <i>serrator</i> , Linn.	139
60. SMEW. <i>Mergus albellus</i> , Linn.	141
61. HOODED MERGANSER. <i>Mergus cucullatus</i> , Linn. . .	144

o/c 1-78









A. Thorburn

$\frac{1}{5}$

CORMORANT.

Phalacrocorax carbo (Linn.).

CORMORANT.

PHALACROCORAX CARBO (Linn.).

Pelecanus carbo, Linn. S. N. i. p. 216 (1766).

Halieus cormoranus, Naum. xi. p. 52.

Phalacrocorax carbo, Macg. v. p. 380; Hewitson, ii. p. 471;
Yarr. ed. 4, iv. p. 143; Dresser, vi. p. 151.

Grand Cormoran, French; *Kormoran*, German; *Cuervo marino*, *Pato cuervo*, Spanish.

The Cormorant is common locally on the coast of the United Kingdom and its adjacent islands, but in certain districts is less abundant than the other British representative of the genus,—the Shag, or Green Cormorant. The present species is, however, much less exclusively maritime in habits than the Shag, and occasionally nests at a considerable distance from salt water. As a rule, however, in so far as our Islands are concerned, the present species generally selects the ledges of lofty sea cliffs as breeding-sites, and very large settlements exist in many localities of this kind all around our Islands. In certain inland places in Ireland this bird nests on trees or bushes, and did so within the memory of man at Fritton in Suffolk. In my own

experience of certain maritime colonies of this Cormorant the nests were composed of sea-weed, with occasionally some dry sticks and drift-wood, in some instances a lining of rushes or coarse grass. The eggs are pointed at both ends ; the true shell is of a delicate pale green-blue, but is generally more or less thickly coated or splashed with a white chalky material that is easily scraped off with a knife. A newly hatched Cormorant is a curious, but by no means a lovely object, being featherless, blind, and of a dark lead colour. It is said that the young birds of this species are carried down to the water by their parents long before they can fly ; in confirmation of this statement I can only say that I have frequently chased young Cormorants in boats and been completely beaten by their activity upon and under the water, although they were, to all appearance, incapable of flight. The cliff-breeding Cormorants often travel daily to long distances for fishing purposes : I have frequently met with them just below Totnes on the Dart during their breeding-season ; this must be at least 8 or 10 miles from the nearest nesting-place. The voracity of this bird is in my experience unrivalled except by its near ally the Pelican, who, of course, has more stowage capacity. In captivity a young Cormorant seems perfectly at home at once, and an old one will become tame in a very few days. My friend Captain F. H. Salvin has trained many of these birds to catch fish, or, I should rather say, has allowed many to do so on his account, for no training is really required, the bird when not replete being too glad to follow his natural instinct in the capture of

prey, that he does not swallow only because prevented from doing so by a collar. To those who have never watched a wild Cormorant at work on its own account this style of fishing may be amusing enough, but I confess that it never had any attraction for me, and I infinitely prefer a rat-hunt conducted upon fair sporting principles ; I believe, however, that to see the perfection of fishing with Cormorants for human advantage, it is necessary to visit China and Japan. I have met with the Cormorant, roughly speaking, wherever fishes are to be caught by diving in salt or fresh water, with immunity from human persecution, but this species is far less common in the Mediterranean than the Shag above mentioned.







$\frac{1}{5}$

GREEN CORMORANT OR SHAG.

Phalacrocorax graculus (Linn.).

Litho. W. Greve, Berlin.

A. J. Van der Linde

GREEN CORMORANT OR SHAG.

PHALACROCORAX GRACULUS (Linn.).

Pelecanus graculus, Linn. S. N. i. p. 217 (1766).

Haliaeetus graculus, Naum. xi. p. 88.

Phalacrocorax graculus, Macg. v. p. 392; Yarr. ed. 4, iv. p. 151; Dresser, vi. p. 163.

Phalacrocorax cristatus, Hewitson, ii. p. 473.

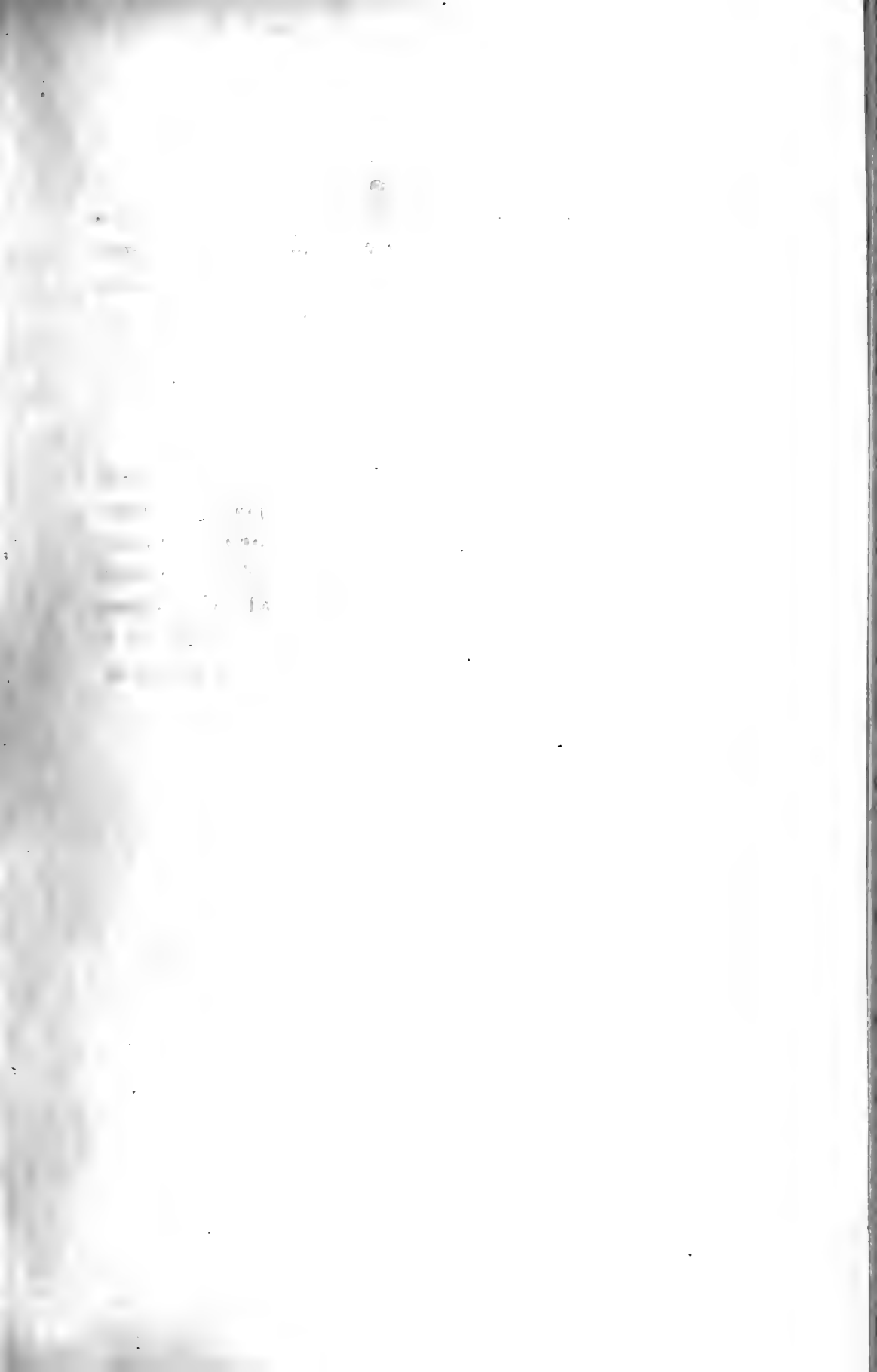
Cormoran-largup, French; *Scharbe*, German; *Cuervo marino*, Spanish.

This species, although very locally distributed on our British coasts, is exceedingly abundant in certain places; from my own experience I am disposed to look upon it as a somewhat rare bird between the mouth of the Humber and Torbay, becoming more frequent as we proceed westward thence, and very common on the south coast of Cornwall and in Scilly; I have also seen it off the coast of Merioneth, and in great numbers in the west and south-west of Ireland. I believe, however, that it is more abundant on the rocky shores of the islands of Scotland than elsewhere, and for a graphic account of the ways and manners of the 'Scart,' as this bird is there called, I cannot do better than refer

my readers to Graham's 'Birds of Iona and Mull' (Harvie Brown). In certain parts of the Mediterranean the Shag abounds, especially on the islands of the Straits of Bonifacio; but wherever there are dark caves and fissures in Mediterranean cliffs, there this bird is almost certain to be met with in the breeding-season; on the ledges of these caves the Shag piles a mass of sea-weeds and grasses, upon which it lays three or four long greenish eggs, covered with a white chalky substance (that may easily be removed), and rears its young. These nestlings when first hatched are about as uncanny in appearance as a bird well can be, being naked, of a dark sooty blue colour, and blind. A Shag-cavern, when numerously tenanted in the breeding-season, is, although most interesting to a naturalist, indeed a gruesome, and, as a Highlander would say, "no a wholesome," place: on pushing into one of these caves in a boat, the smell of decaying fish is almost overpowering; a rush of great dark birds comes forth above, on both sides, and often almost into the arms and faces of the intruders (we always 'backed' in), whilst many of the Shags plunge headlong from the ledges into the sea, and dive under the boat. The real way to see the interior in all its weird horror was to illuminate its recesses by a blue light, when in all probability many old Shags might be discovered still on their nests or on the ledges, twisting their long necks with extraordinary contortions, dazed by the light, and uncertain whether to go or "stand by" to defend their young. However they might decide this question, *we* generally found the stench so horrible, that after taking in the

scene we were glad to beat a speedy retreat and chase any young Shag that might have taken to the sea, and be unable to fly, with a view to capturing him alive—an attempt that, in my experience, was invariably a failure, for although we could often have killed these youngsters, had we been so-minded, with oars or boat-hook, they always managed to dive and conceal themselves amongst the boulder stones and sea-weed at the foot of the rocks. I have occasionally, but rarely, found an isolated pair of Shags that had made their nest on an open ledge of cliff (I am writing exclusively of my Mediterranean experience); as a rule, we found these birds nesting in large caverns or in adjoining crevices in the face of the cliffs in considerable colonies. I need hardly say that the Shag is a splendid diver, a very fast swimmer, and, considering his build, a quick and active flyer. It is a somewhat remarkable fact that although, as I have already stated, this species is not common on the eastern coast of England, few autumns pass by in which I do not hear of one or more occurrences in our inland county of Northamptonshire; this is the more surprising for the reason that although the Common Cormorant often frequents inland waters, the habits of the Shag are almost exclusively maritime. The crest is said to be assumed in spring and to drop off during the breeding-season in April and May, but there is no rule without an exception: I never saw a Shag in the Mediterranean with a crest at *any* season of the year; I shot a few on the coast of Cornwall in August with some crest-feathers still remaining, and a bird of this

species obtained by a shot in Northamptonshire, that lived at Lilford for more than four years, was drowned under ice on our pond with a large Roach in its gullet on December 14, 1888, and had nearly completed the moult, bearing at the time of its death *a well-developed crest*.





Litho. W. Greve, Berlin.

GANNET.
Sula bassana (Linn.)

GANNET.

SULA BASSANA (Linn.).

Pelecanus bassanus, Linn. S. N. i. p. 217 (1766).

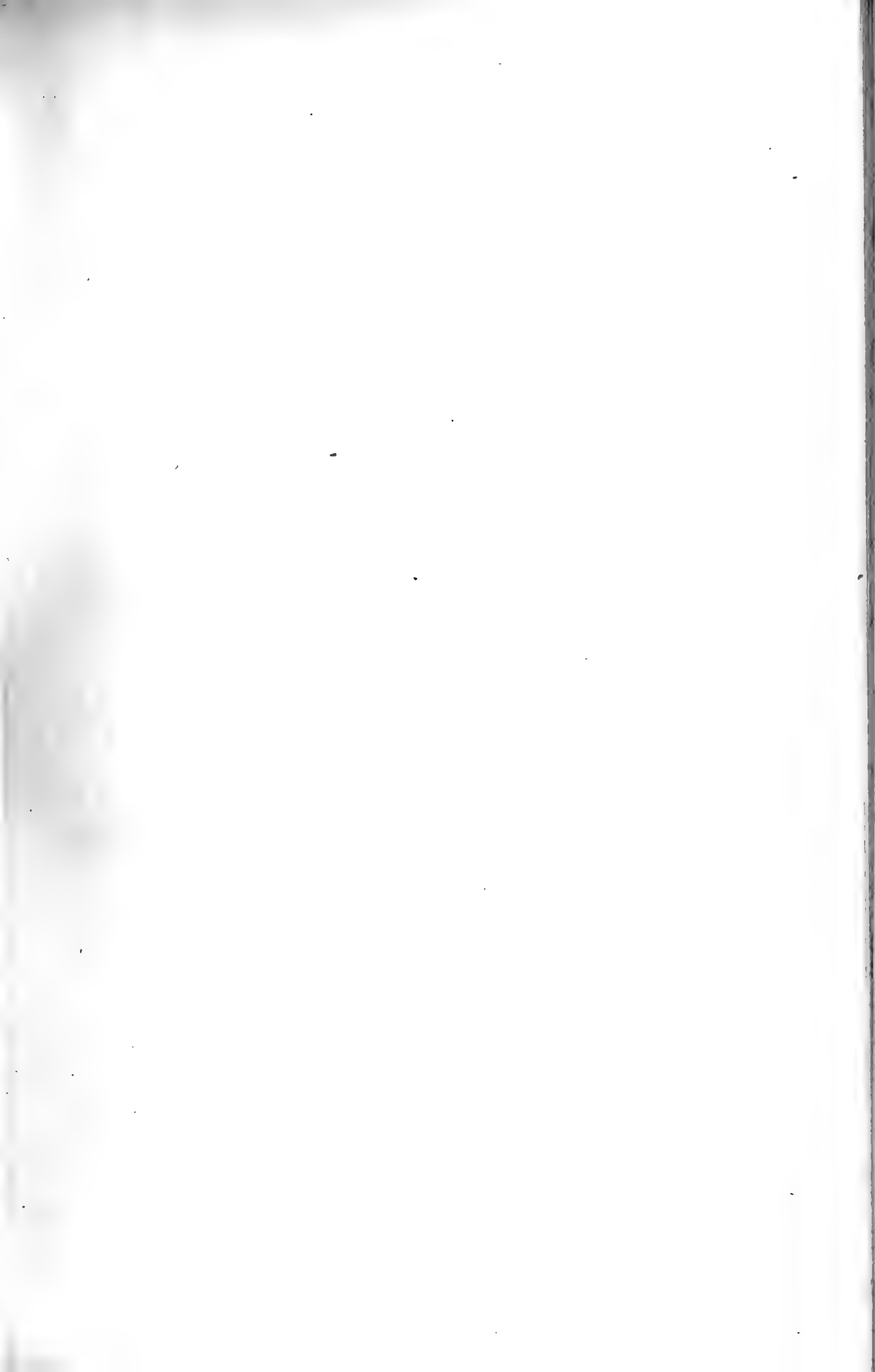
Dysporus bassanus, Naum. xi. p. 14.

Sula bassana, Macg. v. p. 405; Hewitson, ii. p. 474; Yarr. ed. 4, iv. p. 155; Dresser, vi. p. 181.

Fou de Bassan, French; *Bass-Tölpel*, *Soland-Gans*, *Weisse Sule*, German; *Alcatraz*, *Alcatrán*, Spanish.

The Gannet breeds in very large numbers on certain isolated rocks off the coasts of Scotland and Ireland, and also on Lundy Island in the Bristol Channel; but as I have never been at or near any of these breeding-stations during the breeding-season, I must refer my readers to other authors for details of the nesting-habits of the bird, merely stating that I have good reason to believe that some Gannets habitually breed on the coast of Portugal, though I am not aware that there is any authentic record in confirmation of my opinion. A few Gannets may be seen at almost all times of the year in the English Channel, the Bay of Biscay, and off the Atlantic coast as far west as Gibraltar, and occasionally in the great western basin of the Mediterranean, but may be considered as rare birds to the westward of

Cartagena. These birds live exclusively upon fishes and follow the migratory millions of herrings, pilchards, and mackerel as long as they remain near the surface, working their voracious will upon the hordes by day, and sleeping on the water above them during the dark hours ; but I know, from personal observation, that the Gannet carries on its fishing by the light of the moon, as I well remember that, on a certain brilliant and perfectly still night in August, as we lay becalmed off Ferrol, these great birds were plunging around us in all directions in pursuit (as I believe) of sardines. The method of fishing adopted by this bird is a constant source of admiration and interest to those whose business or pleasure takes them on to the sea, as the operations of the Gannet are easy to observe : one after another, and often many together, precipitate themselves headlong, often from a great height, into the sea, disappear for a few seconds, and emerge to recommence work. ▲ The flight of the Gannet is very powerful and long-sustained, and it is a light and graceful swimmer, though, as may well be supposed, its actions on land are grotesque and awkward in the extreme. For excellent details as to the very remarkable changes of plumage in this species, from the nest to maturity, I cannot do better than refer to Mr. E. T. Booth's 'Rough Notes,' and the accompanying illustrations by Mr. Ed. Neale.



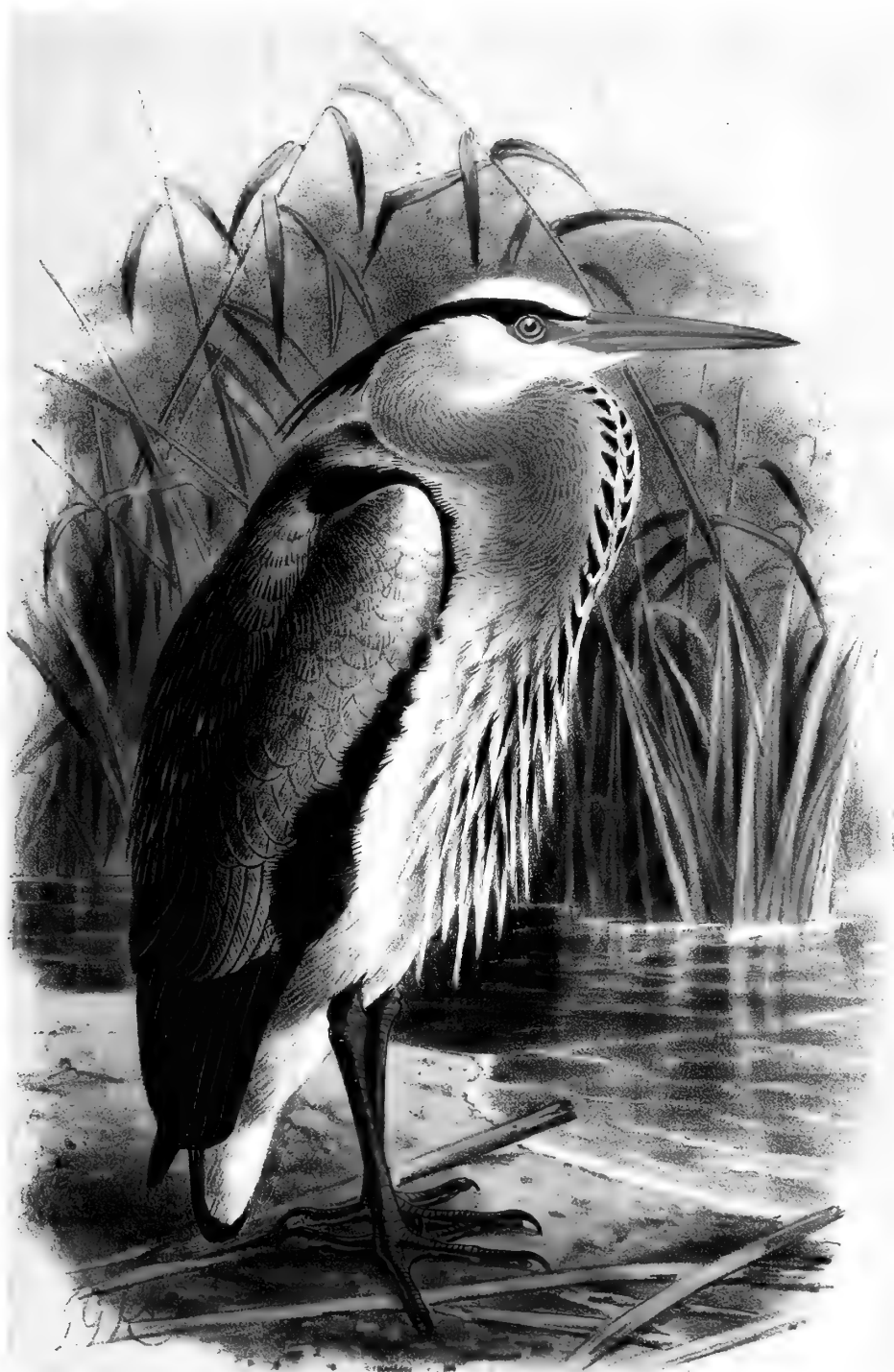
COMMON HERON.

ARDEA CINEREA, Linn.

Ardea cinerea, Linn. S. N. i. p. 236 (1766); Naum. ix. p. 24, xiii. p. 255; Macg. iv. p. 440; Hewitson, ii. p. 310; Yarr. ed. 4, iv. p. 162; Dresser, vi. p. 207.

Héron, French; *Fisch-Reiher*, German; *Garza*, Spanish.

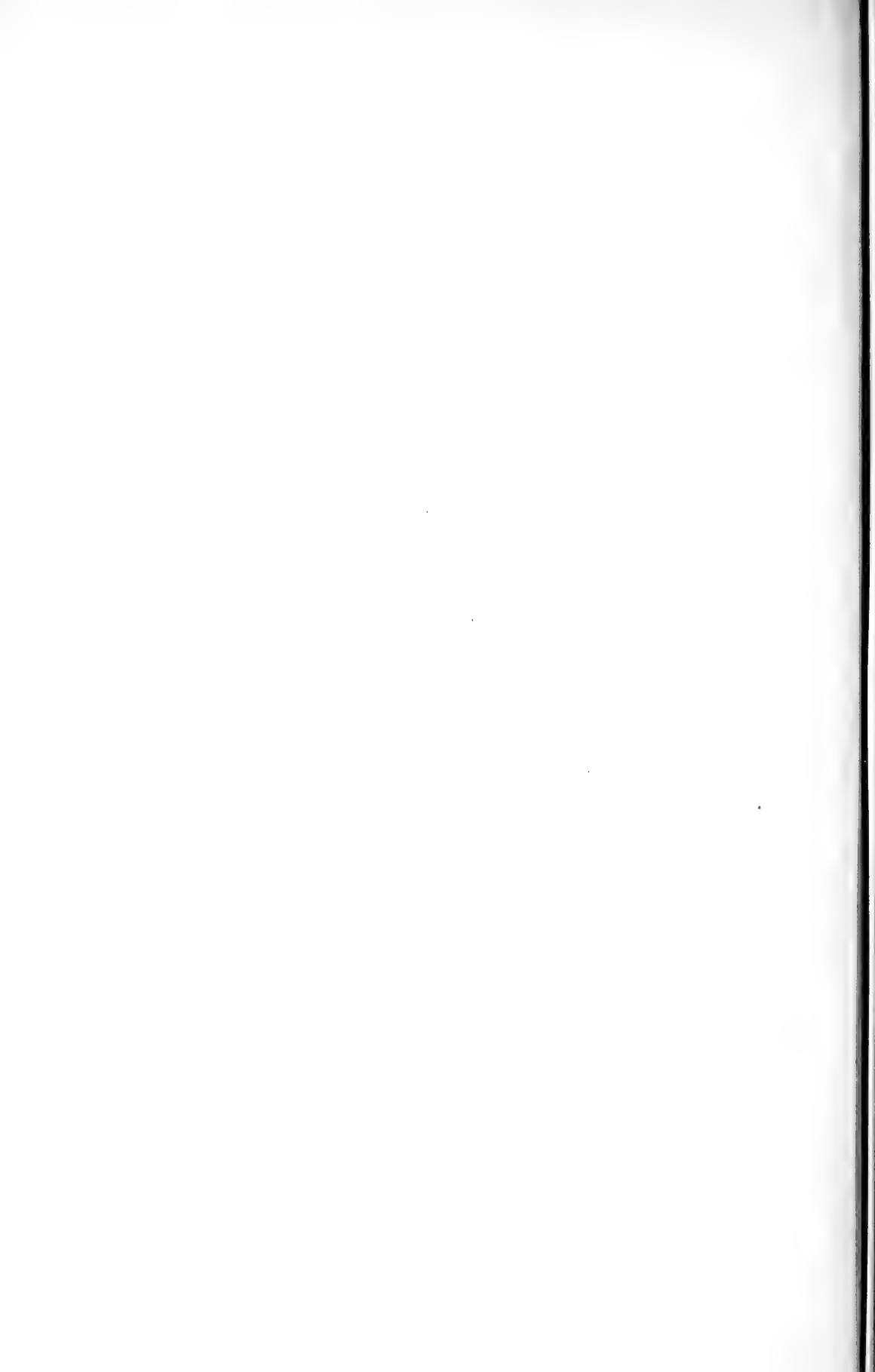
This fine bird still holds its own in our country, and although no longer rigorously protected for the purposes of falconry, and subject to the persecution of fish-preservers and bird-stuffers, the "Heronshaw," as it is still often called by our country-people, is fortunately too wary a bird to be easily exterminated, and will, we trust, long remain as a very remarkable natural ornament to the beauty of our incomparable British river and lake-scenery.

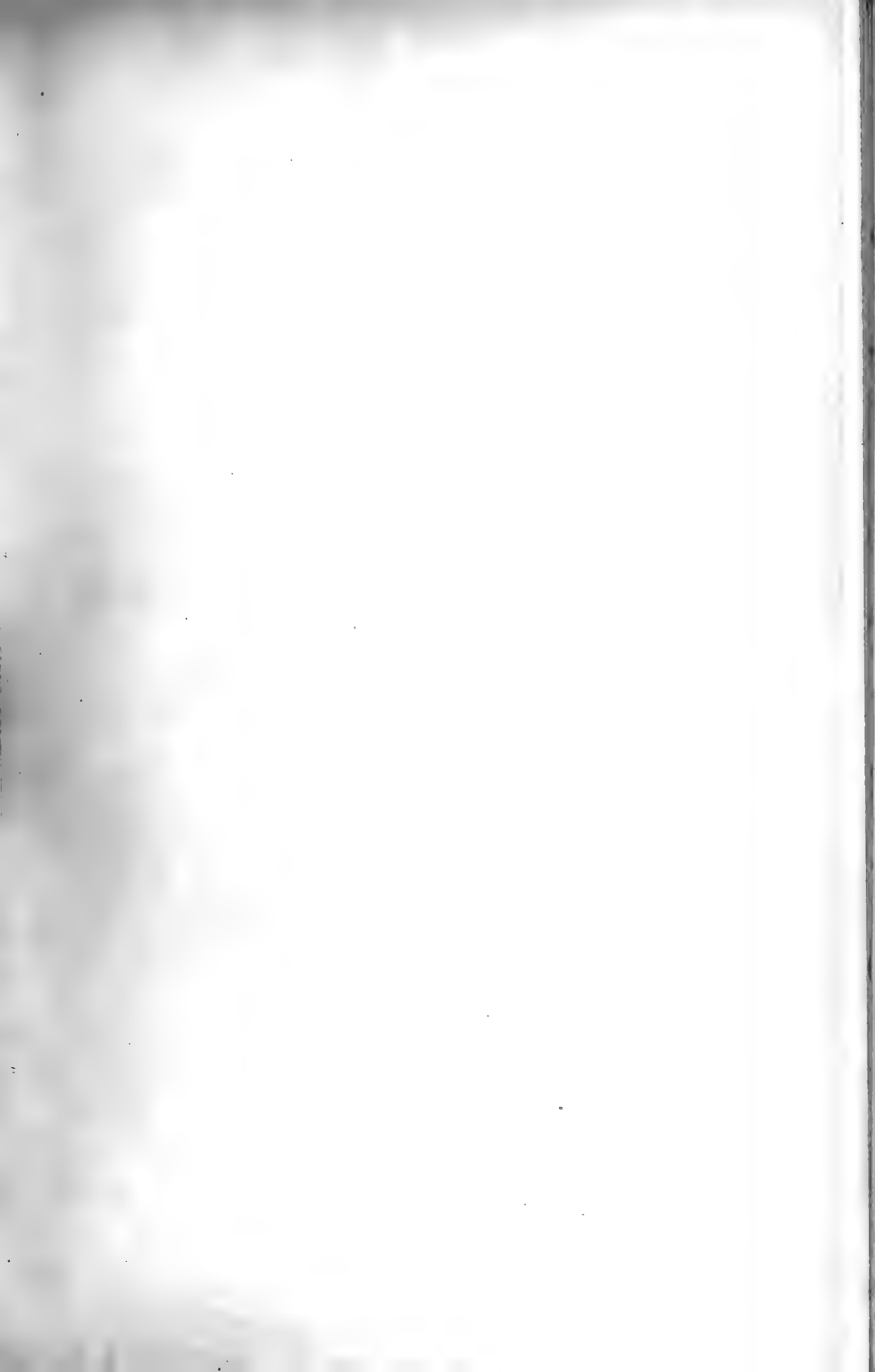


J. C. Koulemans del et lith

²/₅
COMMON HERON.
Ardea cinerea, *Lin.*

Minterva Bros imp







$\frac{1}{5}$

Litho. W. Greve, Berlin.

PURPLE HERON.

Ardea purpurea, *Lin.*

PURPLE HERON.

ARDEA PURPUREA, Linn.

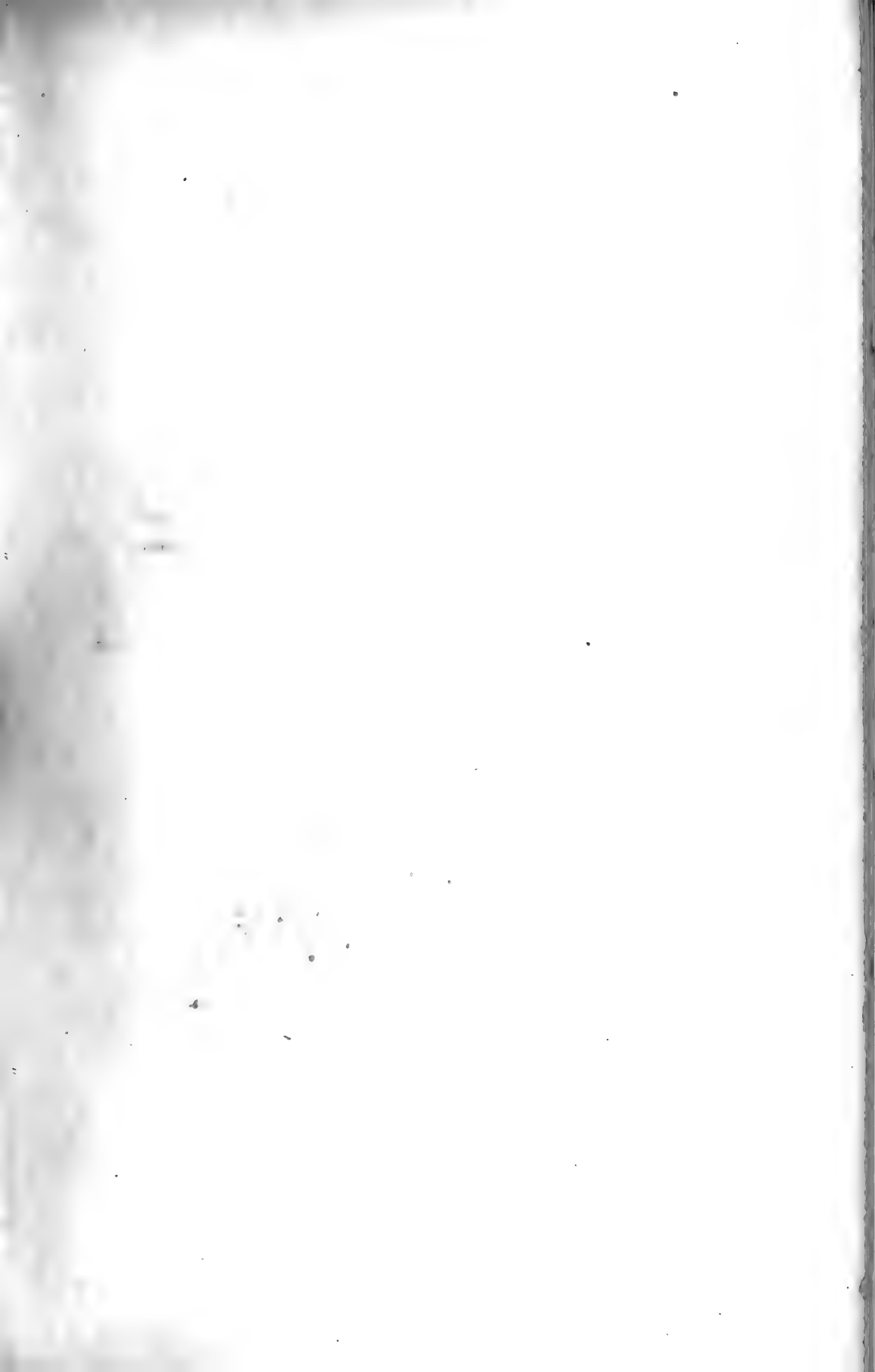
Ardea purpurea, Linn. S. N. i. p. 236 (1766); Naum. ix. p. 63; Macg. iv. p. 453; Hewitson, ii. p. 312; Yarr. ed. 4, iv. p. 172; Dresser, vi. p. 217.

Héron pourpré, French; *Purpurreiher*, *Bergreiher*, German; *Garza*, *Garza real*, Spanish.

Many instances of the occurrence of this species in our country have been recorded. I was present at the capture of a young Purple Heron in the "Broad" district of Norfolk in July 1862; but I do not know that there is any authentic evidence of the nesting of this Heron even in that most eminently suitable part of England, or, indeed, elsewhere in the three kingdoms.

The Purple Heron is well known throughout the Mediterranean countries as a summer visitor, and still breeds in certain parts of France and also in Holland, from which latter country I have very recently received some young birds unable to fly, and with some of the nursery filaments still adherent. This species migrates in large flocks generally at a considerable height, and, on its first arrival, may often be found in gardens and corn-fields far away from the jungles of reeds and canes

which are its favourite resort. The nests of this Heron are generally built amongst dense aquatic vegetation, and are composed of dead reeds and sedges: I have heard of instances in which the nest has been placed in a tree, but, from my own experience, I am of opinion that this bird is the least arboreal of European Herons; it is of a more skulking nature than our Common Heron, in this respect approaching the Bittern. In captivity the Purple Heron becomes tame to a certain degree, but, as a rule, avoids observation as much as circumstances will permit; frogs are its favourite food, but it may be fairly considered as omnivorous as the others of its genus.





$\frac{1}{5}$

Litho. W. Greve Berlin.

GREAT WHITE HERON.

Ardea alba, *Lin.*

GREAT WHITE HERON.

ARDEA ALBA, Linn.

Ardea alba, Linn. S. N. i. p. 239 (1766); Yarr. ed. 4, iv. p. 177; Dresser, vi. p. 231.

Ardea egretta, Naum. ix. p. 85, xiii. p. 255.

Egretta nigrirostris et alba, Macg. iv. pp. 460, 465.

Héron aigrette, French; *Silberreiher*, German; *Garza blanca*, Spanish.

This beautiful bird rarely straggles so far to the westward as Great Britain; some eighteen or twenty have been recorded as "seen," and eight or nine of them obtained in England and Scotland. A very fine adult bird, with fully-developed dorsal plumes, was killed in Thorney Fen, Cambridgeshire, in May or June 1849, and is specially referred to here for the reason that it is preserved in the collection of my friend Colonel C. J. Strong, of Thorpe Hall, near Peterborough, who invited Mr. Thorburn to inspect it for the purposes of this work; I may mention, however, that the figure in the Plate was mainly taken by the latter gentleman from living specimens at Lilford.

My own acquaintance with this Heron in a wild state is principally confined to the marshes of Epirus

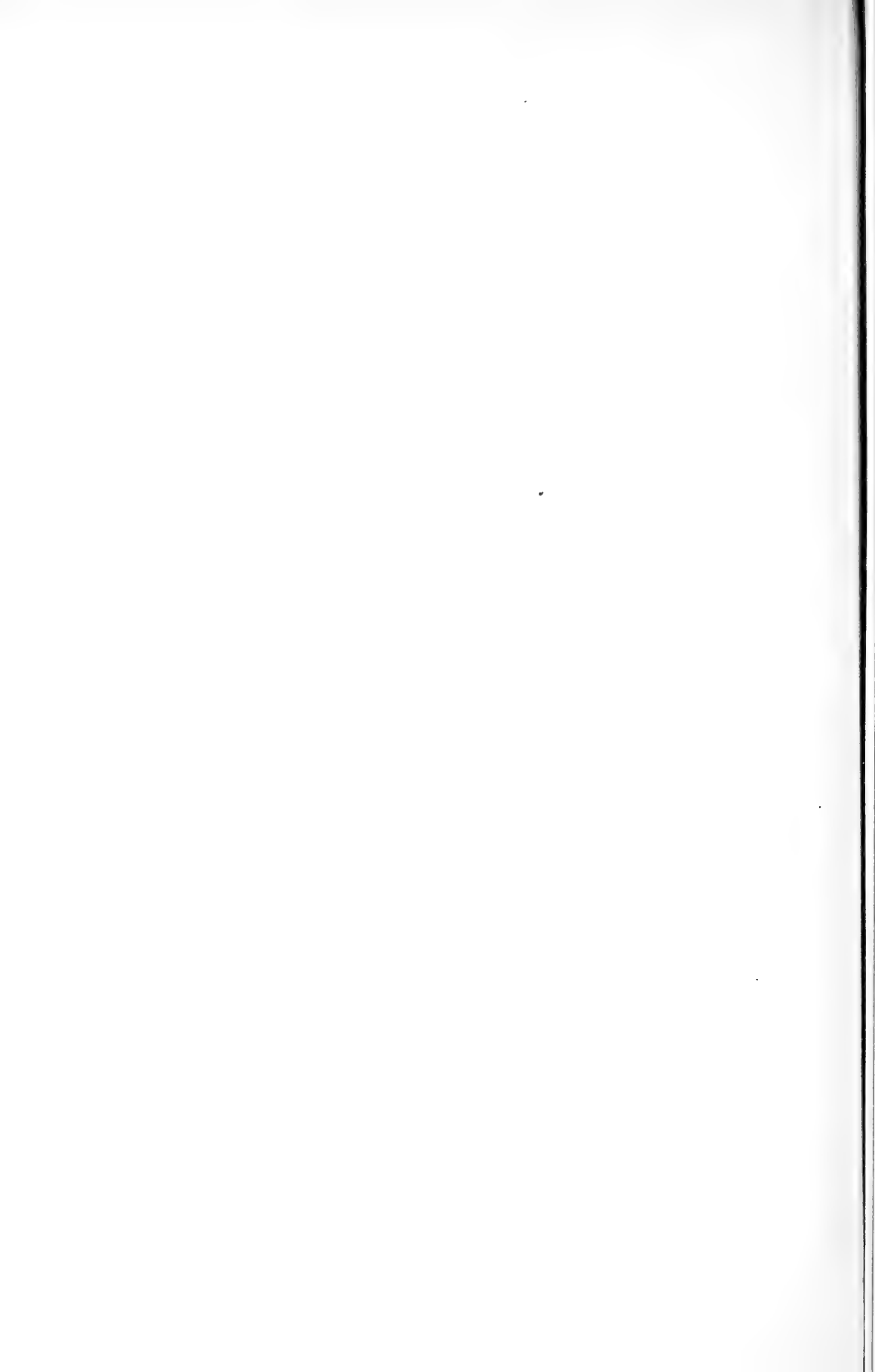
and the Ionian Islands, where, although not very abundant, it was always to be met with during the two winters that I passed in those regions.

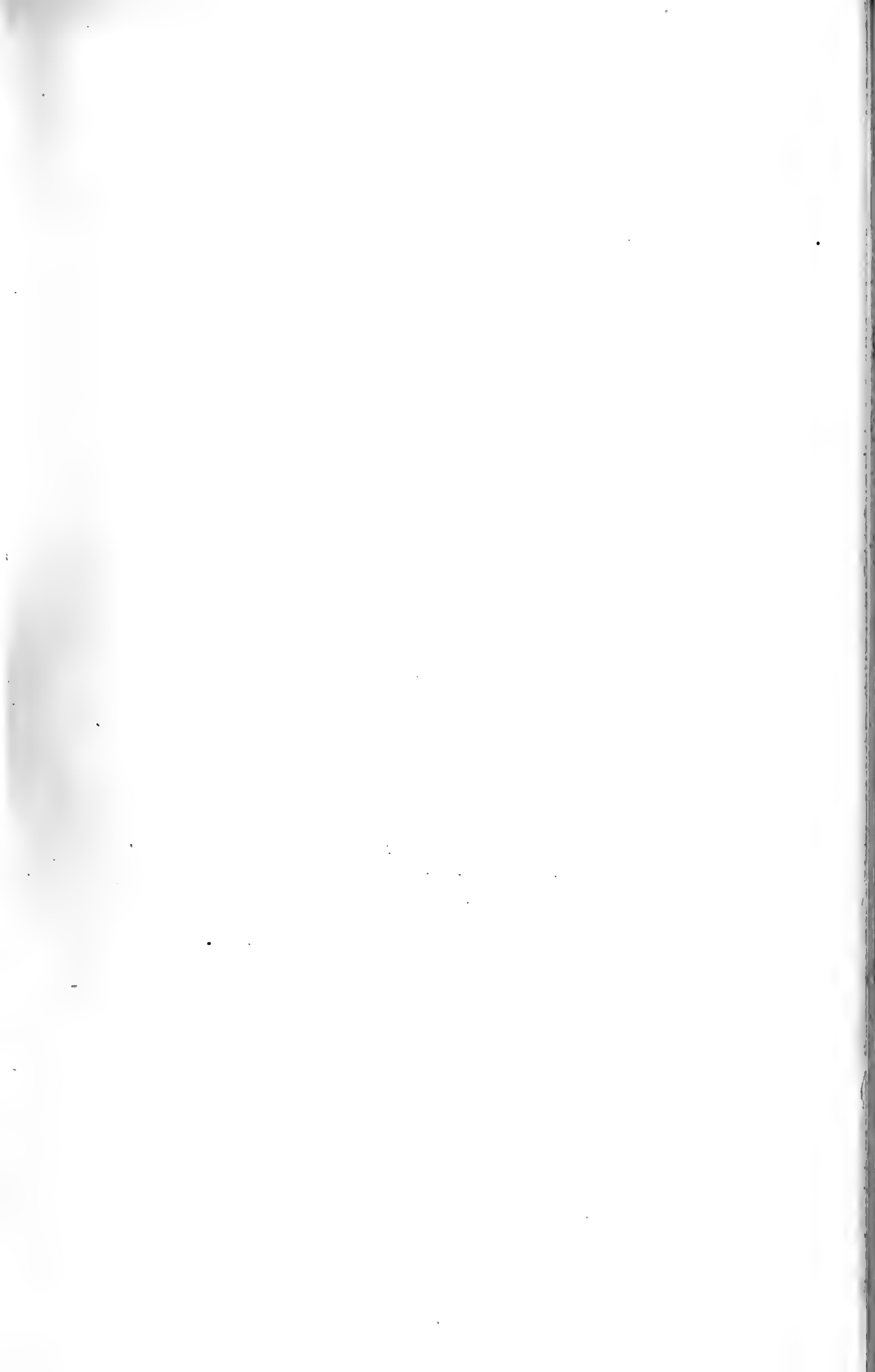
This species appeared to be very much less wary than the Common Heron; but although I more than once obtained specimens by a cautious approach, I never found that the Great White Heron partook in any degree of the skulking habits of the Purple Heron and some other members of the family. In general habits this bird resembles the Common Heron, frequenting the open marshes and the margins of rivers and lakes in quest of food during the day and roosting in high trees. As I have never had the good fortune to see this species at its breeding-places, I leave the description of its nesting-habits and eggs to other authors. Adult birds are said to have black beaks during the breeding-season; but all those that I handled in the winter had those instruments of the pale yellow depicted in the Plate, nor have any of my birds in captivity ever acquired black beaks, although several have passed two or three years in my possession. In captivity the Great White Heron, although a summer migrant to Europe, supports our usual winter weather very fairly well without any artificial protection from cold; in temper these birds resemble other Herons, and are spiteful and unfriendly *inter se* as well as with other species. I never noticed that this Heron erects the dorsal plumes to any extent, as is the common habit of the Little Egret when in any way excited.

Here it would seem appropriate to notice the wanton destruction of this and many kindred species that has

been carried on all the world over for many years past, for no other purpose than the supply of the dorsal plumes for the supposed ornamentation of feminine and military head-gear. In "the trade" these feathers are known as "Ospreys"; and the thoughtless fashion for them has caused the almost entire extinction of more than one species. I am delighted to believe that in this country at least a very considerable check has been put upon this atrocious business by the action of the Ladies' "Society for the Protection of Birds," an association that cannot be too widely made known, or too highly commended. I would strongly urge all ladies who may honour me by reading these notes to enrol themselves as members of this really beneficent Society, whose only object is the preservation from wanton destruction of some of the most interesting and beautiful of organized creatures.

To return to my immediate subject. I was assured by the person who has chief charge of my living Collections at Lilford that during the heavy snow-storm of May 18, 1891, he saw one of my Great White Herons, standing on the bank of one of our ponds, seize and devour several of the perishing Swallows and House-Martins that incautiously fluttered within reach, in their vain search for their usual insect-food.







A. Thorburn

$\frac{1}{4}$

Litho. W. Greve, Berlin.

LITTLE EGRET.

Ardea garzetta, Linn.

LITTLE EGRET.

ARDEA GARZETTA, Linn.

Ardea garzetta, *Linn.* S. N. i. p. 237 (1766); *Yarr.* ed. 4, iv. p. 182; *Dresser*, vi. p. 239.

Ardetta garzetta, *Naum.* ix. p. 101, xiii. p. 257.

Egretta garzetta, *Macg.* iv. p. 471.

Héron garzetta, French; *Seiden-Reiher*, German; *Garza blanca*, Spanish.

This very beautiful bird is a rare straggler to our country. Mr. H. Saunders states that as far as he could learn there is only one recorded occurrence about which there can be no doubt,—an adult killed at Countess Weir, on the Exe, on June 3, 1870, and examined by the late Mr. J. Gatcombe. I may mention that I have been credibly assured that a pair of this species, now in the collection of Dr. Pilcher at Boston, Lincs., were killed more than thirty years ago by the late Holeywell, gunmaker of Peterborough, at Whittlesea; given to him by Mr. John Evans, the well-known taxidermist of Bourn, and sent set up by him to Mr. I. Pilcher. This occurrence was first mentioned to me by my friend Colonel C. J. Strong, and confirmed by letters in reply to my inquiries from Mr. John Evans

and Dr. Pilcher. The Little Egret is common at certain seasons throughout the south of Europe, and breeds, occasionally in large numbers, in some of the wooded swamps of Andalusia. I found it in great abundance near Tunis in November and December; it was tolerably common throughout the year in Epirus and Albania, and I have met with it in Sardinia, Sicily, and Cyprus.

In habits it is by far the most confiding and fearless of man of any of the non-skulking *Ardeidæ* of my acquaintance; I have frequently approached on horseback or in a boat, without any sort of concealment, to within a few yards of a party of these Egrets, who took very little notice of us. It is probable, however, that by this time the poor birds, or those that may be left of them, have learned that feminine fashion has cast its eye upon them for personal decoration, and that the lust of gain by this cruel folly has rendered the animal Man, as a rule, a very dangerous neighbour.

This bird forms an artless nest of a few sticks and broken reeds, placed in low trees or bushes in large swamps or marshes; many pairs generally nest in close proximity, and very often in association with other tree-loving Waders, such as the Night-Heron, Buff-backed Egret, Spoonbill, and Glossy Ibis. The only ugly things about this species are its spiteful temper and its harsh croak; the uproar made by a breeding colony of these birds when disturbed and floating in the air over their nurseries must be heard to be believed. The Little Egret spends its days in fishing, frogging, and insect-catching, with intervals for repose and

digestion on a bough, a post, or the back of some ruminant; this latter site is, however, in my experience, much less frequented by this bird than by the Buff-backed Egret. I find the Little Egret somewhat delicate in confinement, but very tame and careless of observation.

The sketch for the Plate was taken from life in the aviary at Lilford.







F. Leach del. d. S. S. S. S.

$\frac{1}{4}$

Western Bros. imp.

BUFF-BACKED HERON.
Ardea bubuleus, Audouin.

BUFF-BACKED HERON.

ARDEA BUBULCUS, Audouin.

Ardea bubulcus, Audouin, Expl. Somm. Pl. Ois. de l'Égypte,
i. p. 298 (1825); Yarr. ed. 4, iv. p. 187; Dresser, vi.
p. 245.

Egretta russata, Macg. iv. p. 474.

Héron garde-bœuf, French; *Garra patosa*, Purgabueyes,
Spanish.

This very beautiful little Heron is a very rare visitor to our country. Mr. H. Saunders*, our most recent authority, states that the specimen obtained near Kingsbridge in October 1805, presented to and recorded by Colonel Montagu, and now in the Natural-History Museum at South Kensington, is the only authenticated British-killed example known to exist.

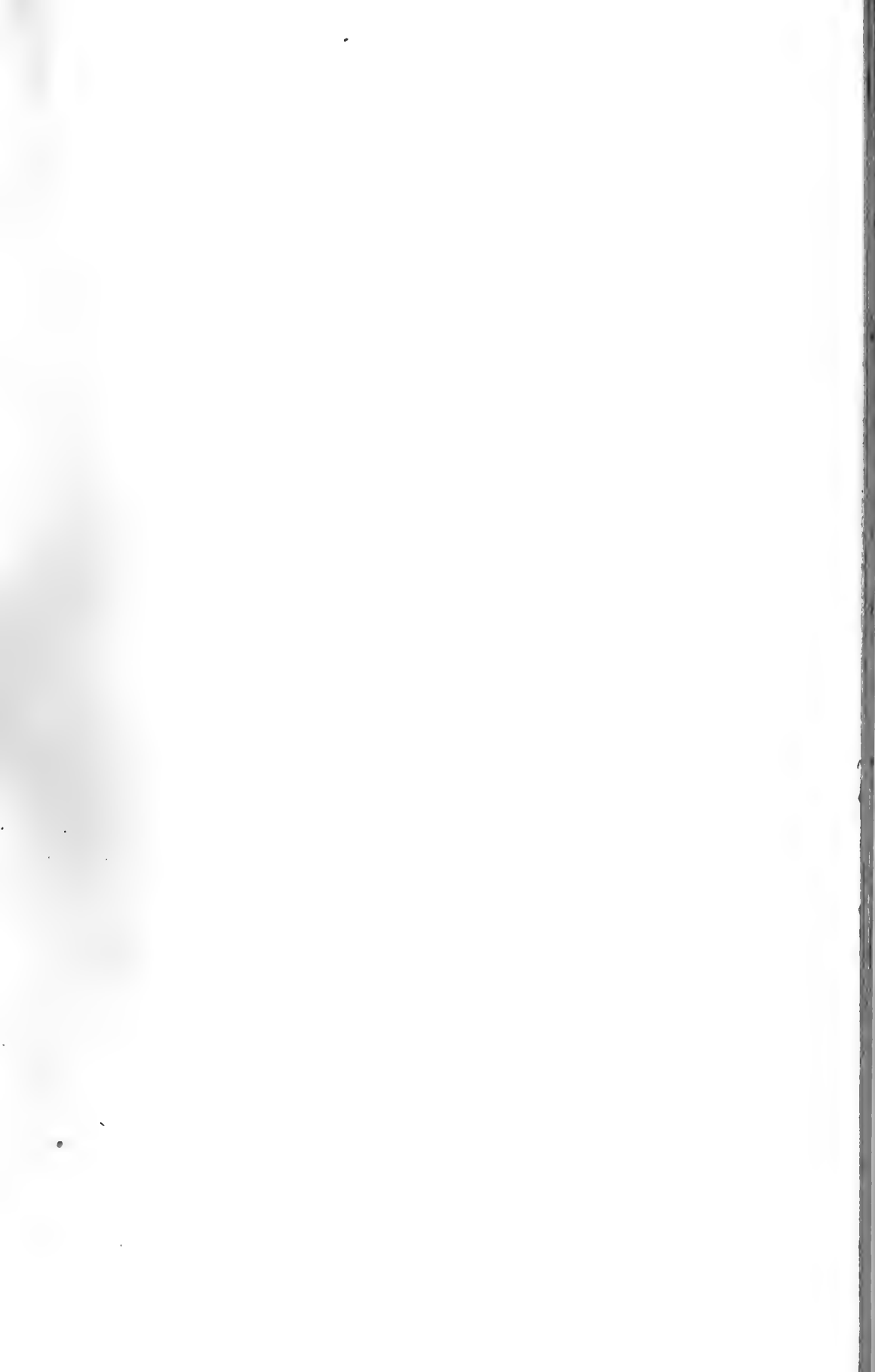
I have met with this species in great abundance in the great marshes of the Guadalquivir below Seville during the summer; it breeds in that district in large colonies amongst high reeds and bushes, and is constantly to be seen amongst the herds of half-wild cattle, very often perched upon the backs of the beasts, searching for ticks, which seem to constitute if not the principal, at least a very favourite diet of this bird.

We found the Buff-backed Egret very common in

* 'Manual of British Birds,' p. 363.

Cyprus on the vernal migration in 1875. The buff plumes which ornament the adult birds of this species are entirely lost in the autumnal moult; and I have been frequently asked why we called a perfectly white bird "Buff-backed"—the only possible answer being, of course, "custom;" but I think that "Cattle-Heron" would be a much more appropriate name for this bird than its commonly accepted English designation.

The drawing for the Plate was taken from a fine Spanish specimen now alive in the aviary at Lilford, and, although the position of the feet and toes may strike many of my readers as unnatural, I can personally vouch for its strict accuracy.





Litho. W. Greve, Berlin.

SQUACCO HERON.
Ardea ralloides, Scop.

$\frac{1}{3}$

L. Greve del.

SQUACCO HERON.

ARDEA RALLOIDES, Scop.

Ardea ralloides, Scop. Ann. I. Hist. Nat. p. 88, no. 121 (1769); Yarr. ed. 4, iv. p. 191; Dresser, vi. p. 251.

Ardea comata, Naum. ix. p. 120, xiii. p. 258.

Botaurus comatus, Macg. iv. p. 428.

Héron crabier, French; *Schopf-Reiher*, German; *Garza cangrejera*, Spanish; *Oroval*, Valencian.

This very beautiful species is only an occasional straggler to the British Islands, some forty or more records of its appearance therein having appeared at the time of the publication of the article relating to it in 'Yarrell,' 4th ed. pt. 26, December 1884. Most of these occurrences took place during the months of May, June, and July, and the majority of the birds captured were in immature plumage. I first made the acquaintance of this species on the shores of the Lake of Geneva in May 1851, when a few appeared in the neighbourhood of Lausanne; but it was not till the month of March 1857 that I ever met with the Squacco Heron in any considerable number. About the end

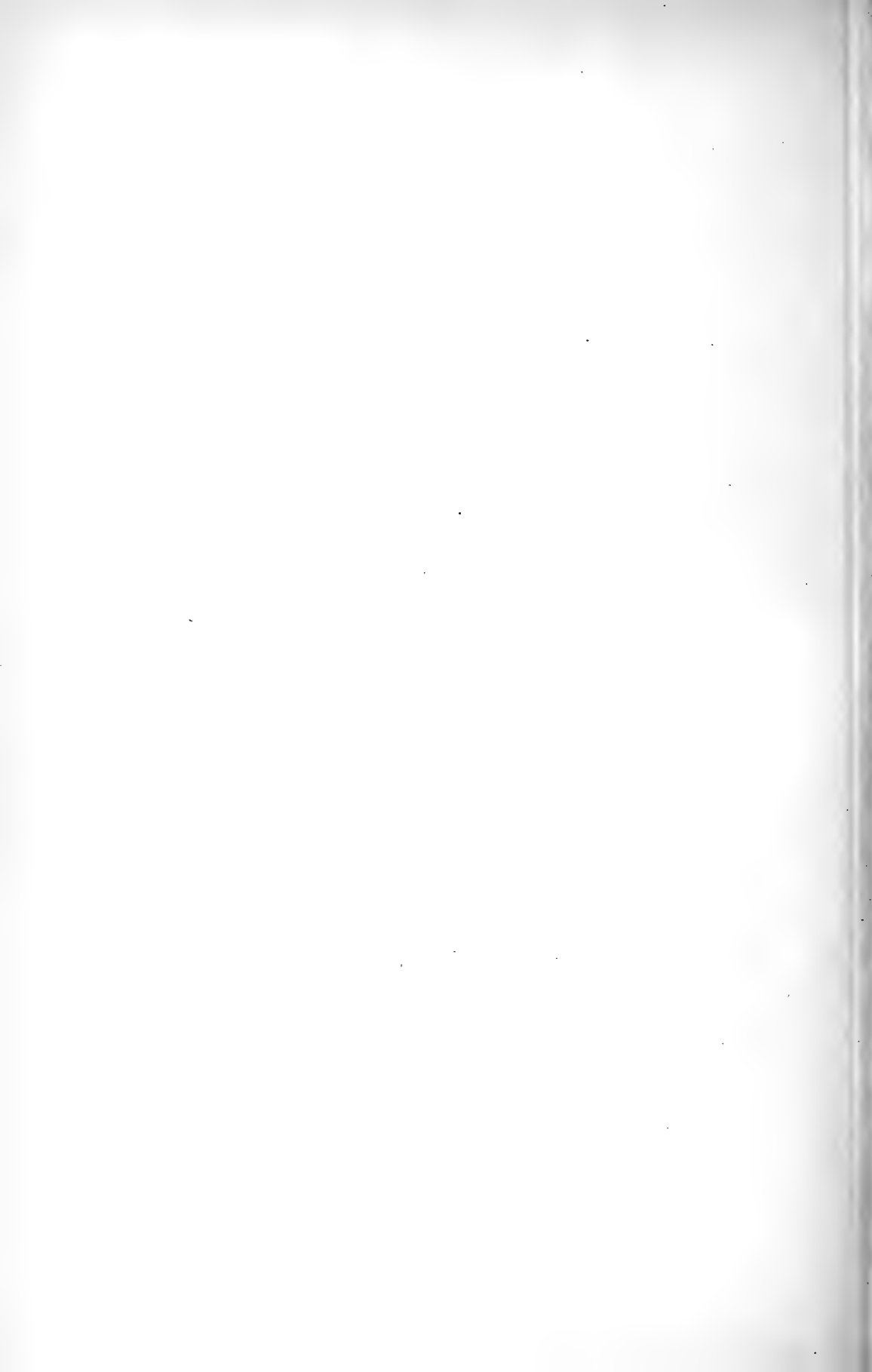
of that month we fell in with a large flock, evidently just arrived, in the great marshes of the Acheron, near the little harbour of Phanari, in Epirus. From that time I constantly noticed small parties of these Herons about the coast of Epirus, and occasionally in the island of Corfu, till about the middle of May, when they disappeared from the coast, as I believe, to breed in the marshes of the interior. I observed large numbers of adult and young birds about the southern end of the Lake of Scutari, in Albania, in August of the year last mentioned. The migrating birds appeared to keep entirely to the open marshes during the daytime; indeed I do not remember to have ever met with one in Epirus in any sort of covert, but I believe that they retired to roost in the jungles of willows and tamarisk that abound in that province.

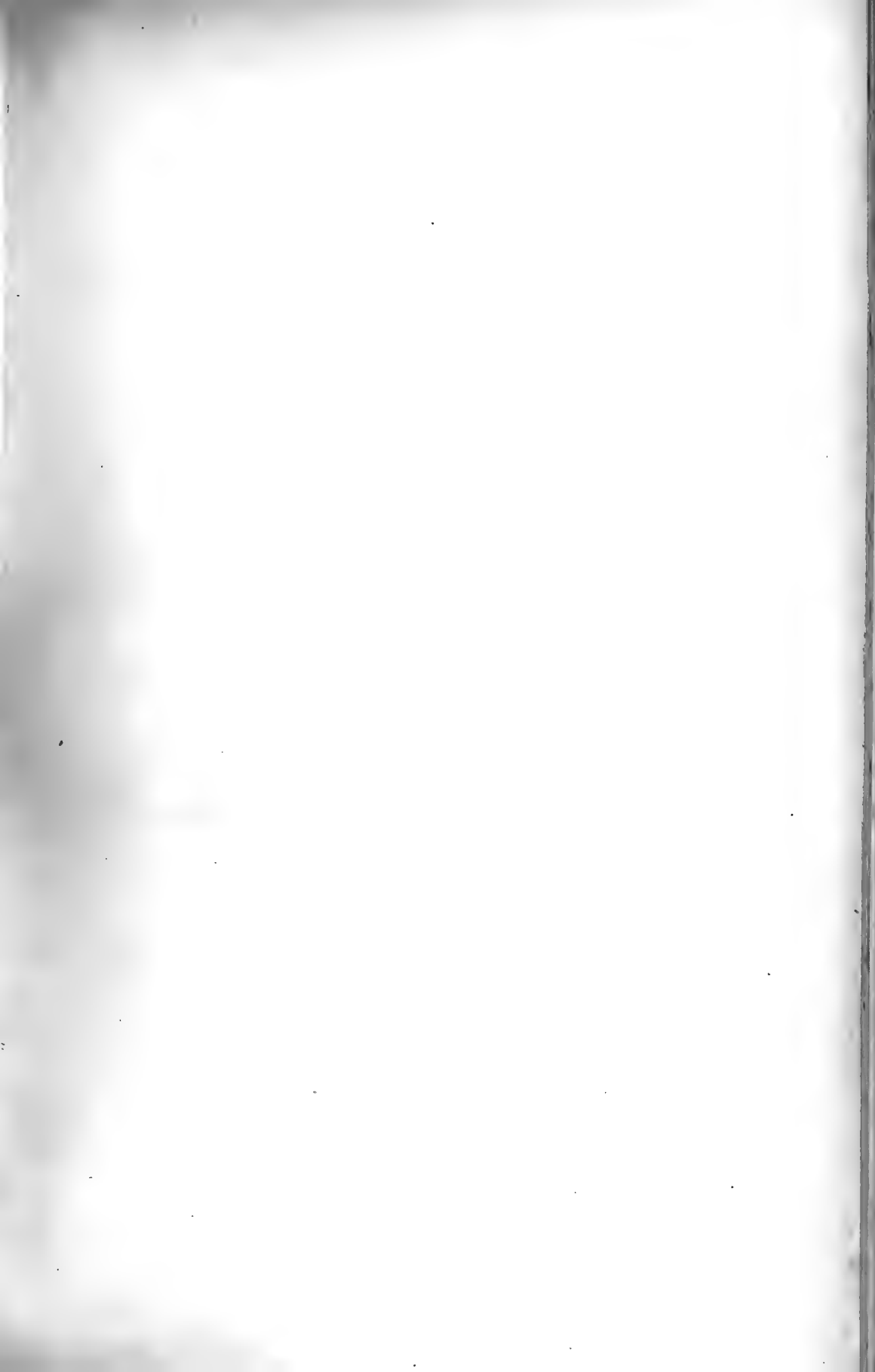
In general habits this bird seemed to me to resemble the Little Egret; but I subsequently found that in Andalucia, where it breeds, it in some respects approximates closely to the Bitterns. The Squacco Heron generally nests in colonies, and builds a nest of twigs in trees or low bushes in the marshes; but Canon Tristram found nests, composed of great heaps of water-weed and rushes, built amongst the reed-jungles of Lake Halloula, in Algeria.

I have received a few eggs of this bird from Southern Spain, with great numbers of those of the Buff-backed and Night Herons. The eggs of the present species are of a greenish blue, intermediate in tint between those of the two species just named. I have reason to believe that their average complement is four.

I have kept a few of these birds in captivity, two or three through their first moult, but they are decidedly the most delicate of the European *Ardeidæ* in confinement, with perhaps the exception of the Little Bittern. My birds became fairly tame, but generally remained singly under the shelter of bushes, from which they occasionally stalked out to seize a frog or some other dainty in the grass, or from their troughs of water. The only note that I ever heard from the Squacco was a harsh rattling croak.

This bird is more or less common throughout the Mediterranean as a summer visitor. I found it to be tolerably frequent in the marshes of Cyprus in April and May.





GREEN HERON.

ARDEA VIRESCENS, Linn.

Ardea virescens, Linn. S. N. i. p. 238.

Butorides virescens, Baird, Brewer, & Ridgway, Water-Birds of N. Am. i. p. 50; Graves-Sawle, Proc. Linn. Soc. 17th April, 1890; Ibis, 1890, p. 386.

One occurrence. At the meeting of the Linnean Society held on 17th April, 1890, Sir Charles Graves-Sawle, Bart., exhibited a specimen of the North-American Green Heron, which had been shot on 27th October, 1889, by his keeper, W. Abbott, on his estate, Penrice, St. Austell, Cornwall. The bird, which may have escaped from captivity, was brought to Sir Charles in the flesh.

Ardea virescens has a wide distribution over North America, Mexico, Central America, and the West Indian Islands, and has occurred in Bermuda.

[O. S.]



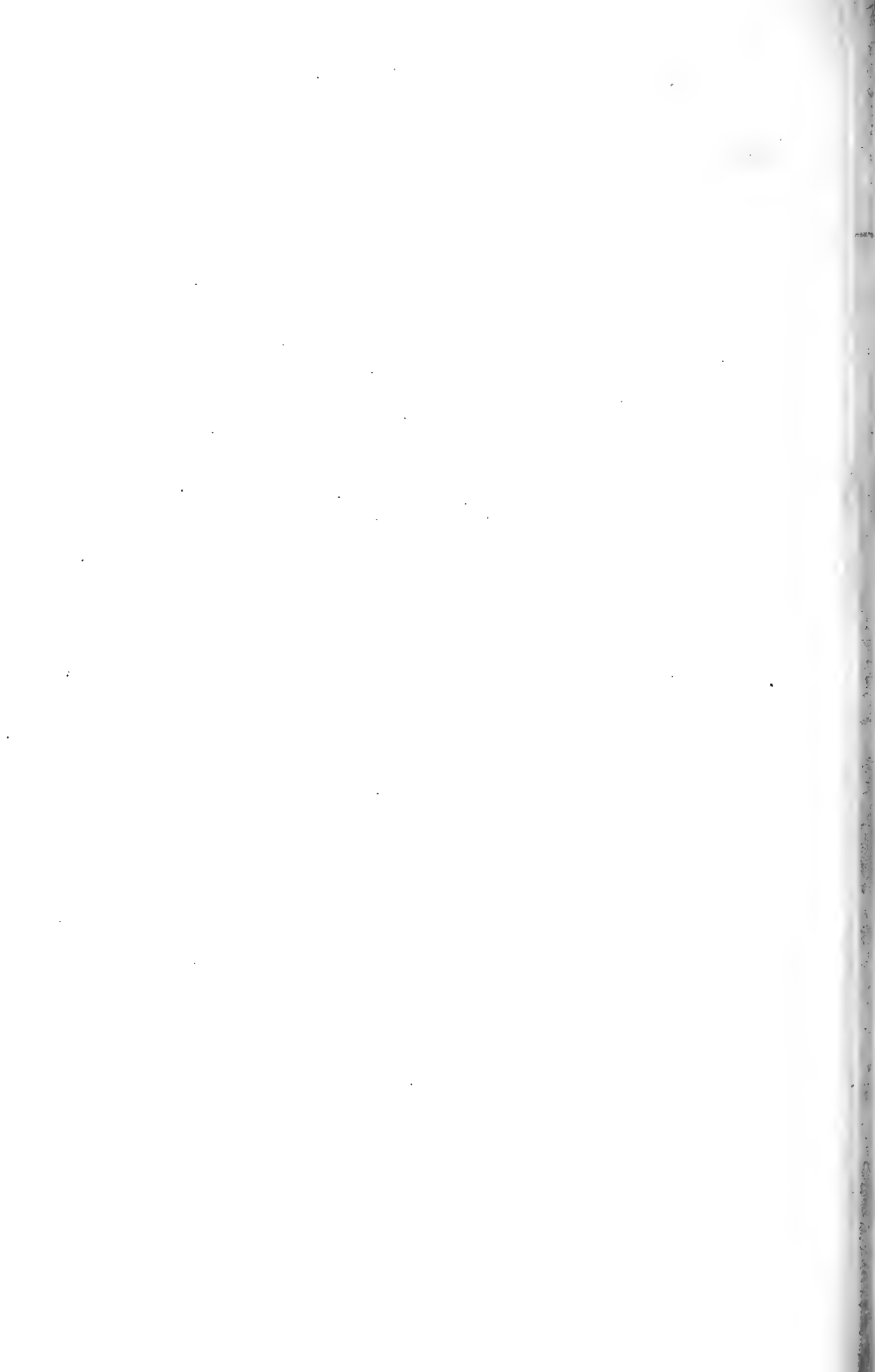
A. Audubon

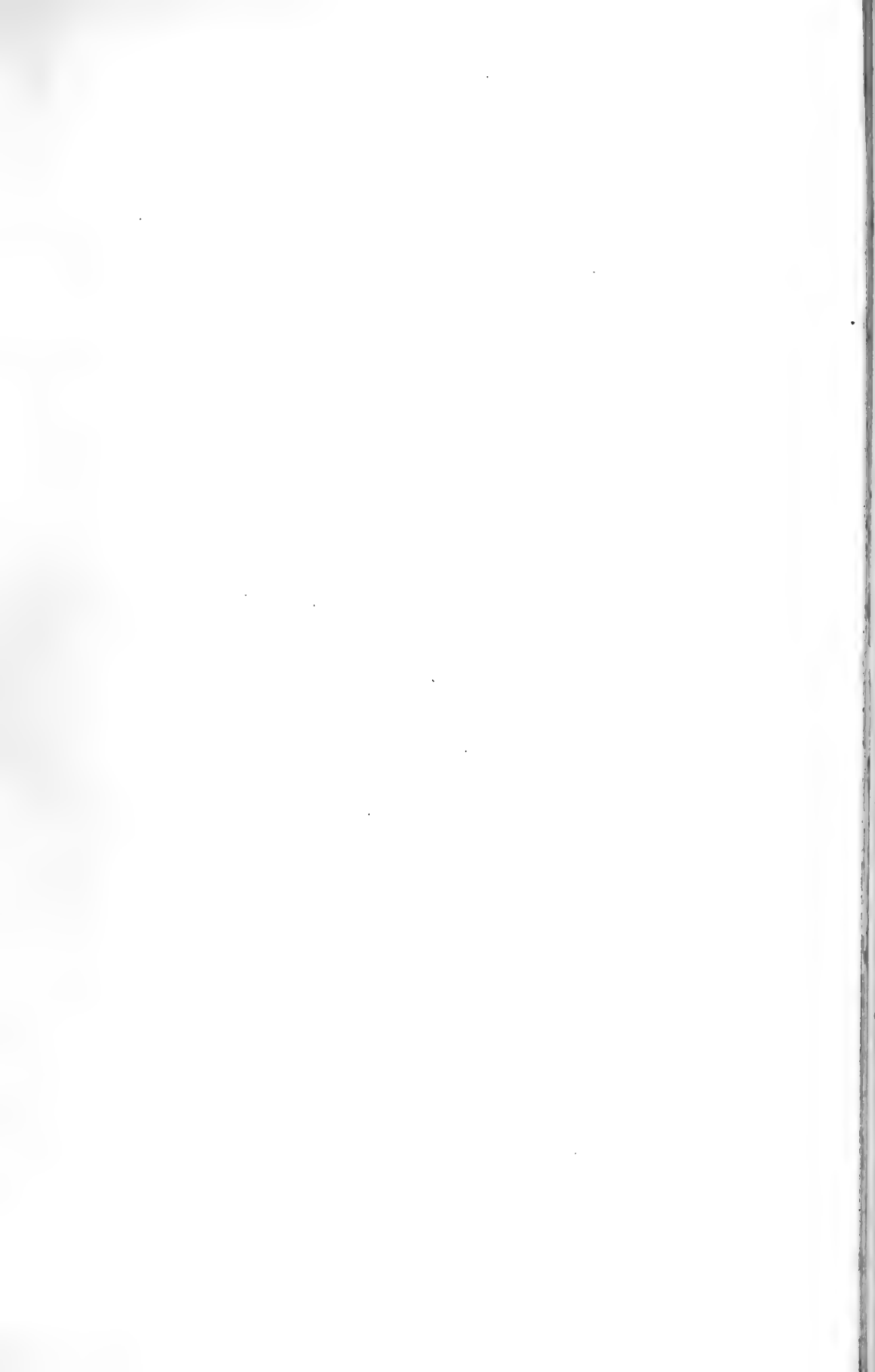
5/12

Litho. W. Greve, Berlin

GREEN HERON.

Ardea virescens, Linn.





NIGHT-HERON.

NYCTICORAX GRISEUS (Linn.).

Ardea grisea, *Linn.* S. N. i. p. 239 (1766).

Ardea nycticorax, *Naum.* ix. p. 139, xiii. p. 29; *Hewitson*,
ii. p. 313.

Nycticorax gardeni, *Macg.* iv. p. 433.

Nycticorax griseus, *Yarr.* ed. 4, iv. p. 195; *Dresser*, vi.
p. 269.

Héron bihoreau, French; *Nächtliche Rohrdommel*, German; *Garza de noche*, *Martinete*, Spanish.

This very beautiful bird is a somewhat uncommon summer visitor to our islands, and there can be little doubt of its having bred in England occasionally, though there is, I believe, no positive record in print of the fact.

The Night-Heron is a very common spring migrant to the southern and central countries of Europe, and breeds in large colonies in Southern Spain and in the valley of the Danube. The nest, when not built amongst reeds, is a slender platform of sticks, much resembling that of the Wood-Pigeon.

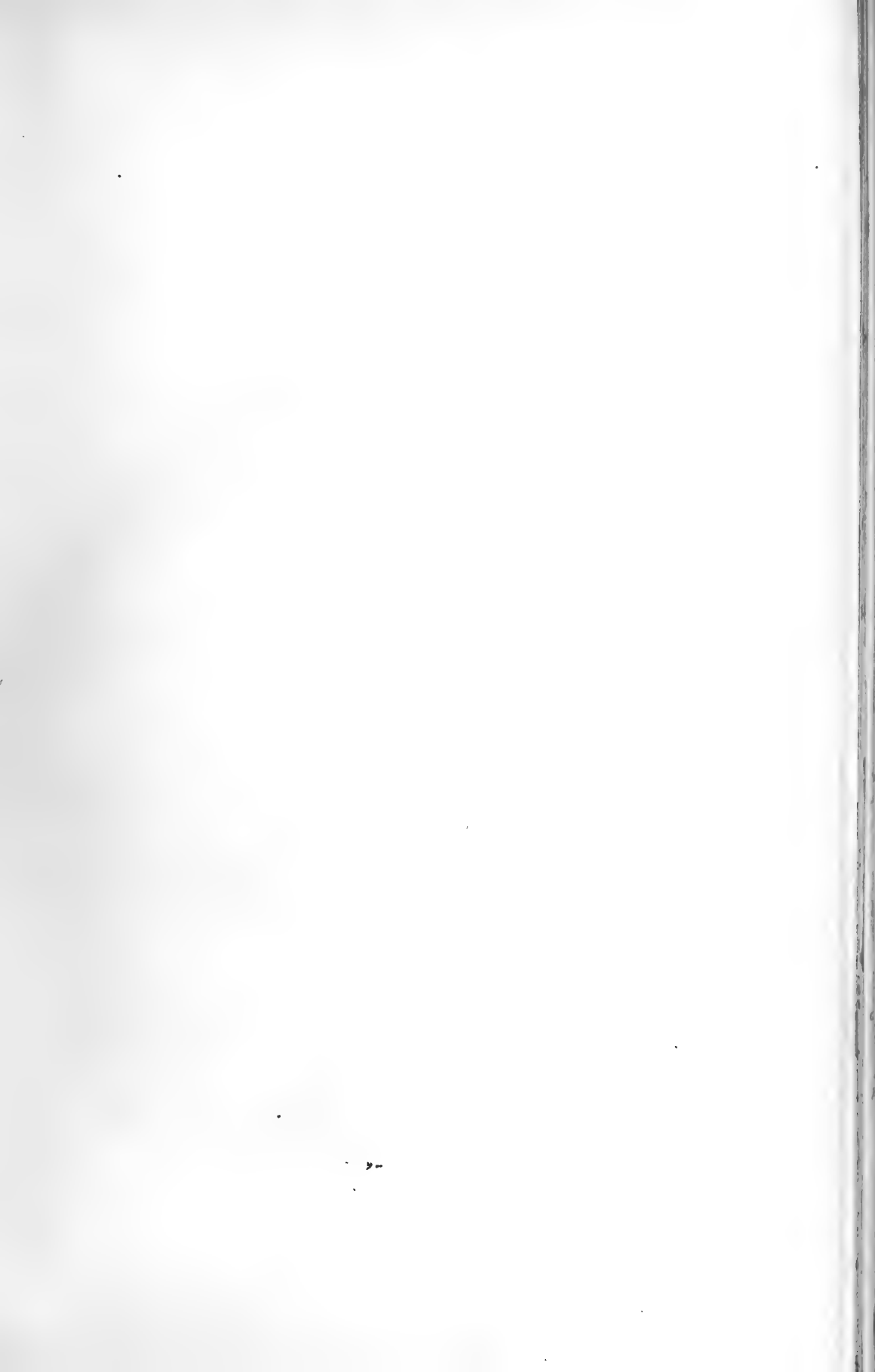
The subjects of the Plate were taken from life in the Lilford aviaries.



$\frac{2}{7}$

Litho. W. Grave, Berlin

NIGHT-HERON.
(*Nycticorax griseus*.)





$\frac{1}{2}$

Litho. W. Greve, Berlin.

LITTLE BITTERN.

Ardetta minuta (Linn.).

LITTLE BITTERN.

ARDETTA MINUTA (Linn.).

Ardea minuta, Linn. S. N. i. p. 240 (1766); *Naum.* ix. p. 194.

Botaurus minutus, Macg. iv. p. 423; *Hewitson*, ii. p. 315.

Ardetta minuta, Yarr. ed. 4, iv. p. 200; *Dresser*, vi. p. 259.

Héron blongios, French; *Kleine Rohrdommel*, German;
Garza chica, *Garzon pequeño*, Spanish; *Gomet*,
Valencian.

Although there is a considerable amount of authentic circumstantial evidence in favour of the breeding of this very remarkable bird in our country, I am not aware that there is more than one recorded instance of the actual finding of its nest in England; the particulars of this occurrence may be found quoted from Lubbock's 'Fauna of Norfolk' (1879), at p. 202, vol. iv. of 4th edition of Yarrell's 'British Birds,' and are to the effect that Mr. Thos. Southwell, in a footnote at p. 90 of the former work, states that Mr. Rising, of Horsey, assured him that about the year 1822-23 a nest of the Little Bittern, containing eggs, was found close to the parsonage at Catfield, Norfolk. I have been assured, on what I hold to be unimpeachable authority, of the occurrence of young birds of this species in one of our southern

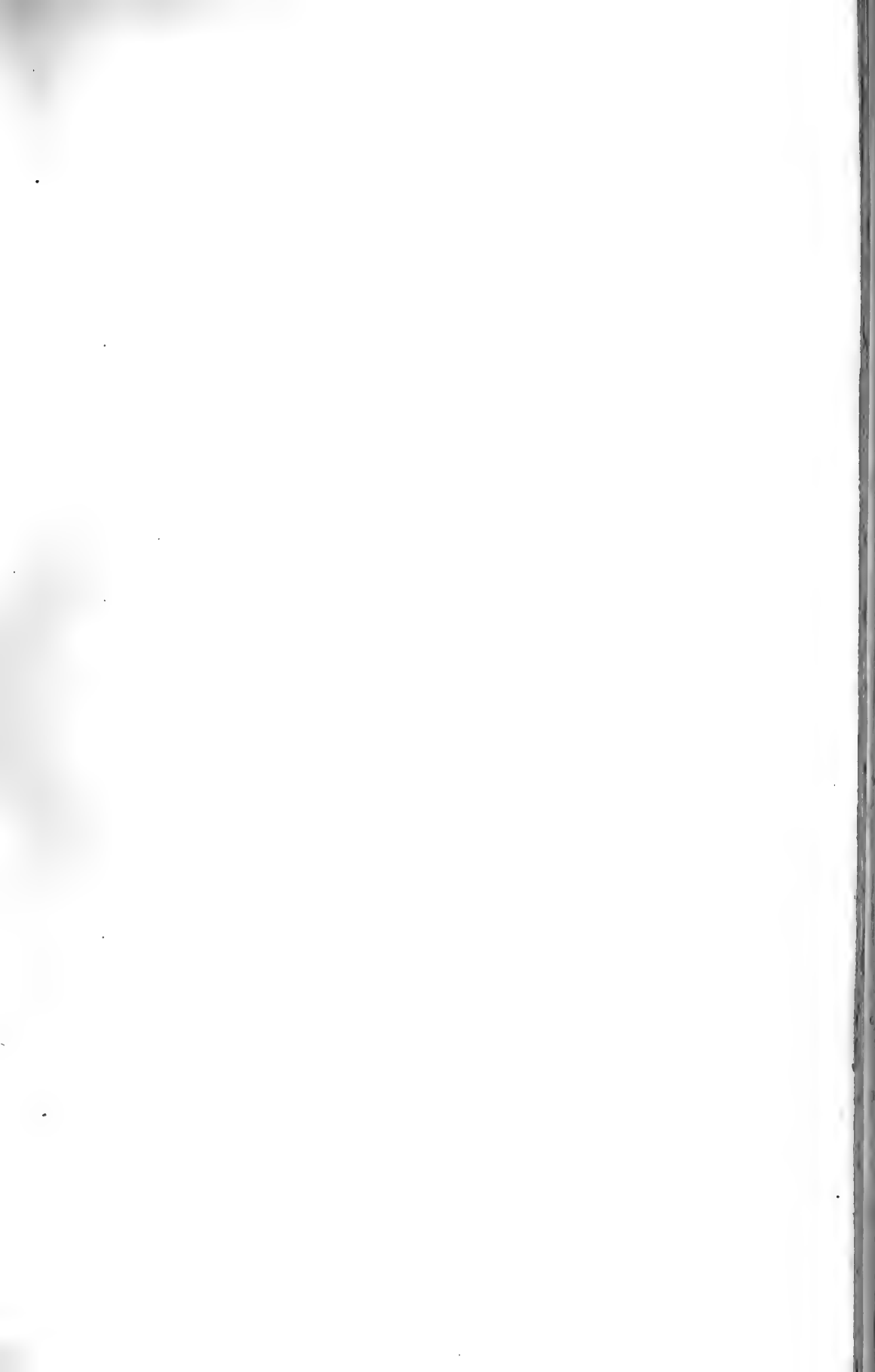
counties, in a condition of plumage that entirely precluded the idea of their having crossed the channel, or, indeed, of their ever having flown for more than a very short distance. Although the Little Bittern can in no sense be termed "common" in our islands, it would be equally incorrect to call it very rare, and I find in Yarrell at p. 203 (vol. *supr. cit.*) that "there is probably not a county in England in which it has not been observed"; it has also occurred occasionally in Scotland and Ireland. I never myself met with this species in a wild state in England, although I am convinced that I have heard its note in Northamptonshire, but I made a fairly intimate acquaintance with it in the Ionian Islands and the province of Epirus, and it is on my experiences in that part of the world that I give the following remarks:—The Little Bittern arrives in Corfu and on the opposite mainland of Turkey during the first fortnight of April, and for a few days after its arrival may be met with amongst the currant-vines, in the young green corn, in gardens, amongst the rocks of the sea-shore, and often perched in olive- or orange-trees at a considerable height from the ground; from the actions of my dogs I believe that when these birds are disturbed in covert they often sneak off in a crouching attitude with long strides, after the manner of a Rail, but quite as often, when closely approached, they behave in the same way as the Common Bittern in similar circumstance,—drawing themselves out to their full length with every feather tightly compressed, and beaks pointing straight to the sky, so as to present as narrow a front view as possible, with the object of attempting to

escape observation from the similarity of the plumage of their necks and breasts to the brown and yellow tints of the reeds, flags, and other aquatic vegetation amongst which they are often to be found. The nest of this species is usually, but not invariably, built amongst growing reeds: one before me as I write is composed entirely of dry flag-leaves, and contained five white eggs with a very faint tinge of green; this nest was taken in the summer of 1890 from the vast reed-beds in the neighbourhood of Valencia. The food of the Little Bittern consists of small fishes, reptiles, and insects of all sorts. A friend informs me that one of these birds in his possession supported itself to a great extent by catching the mice and lizards that came into the aviary in which it was kept in the island of Tenerife.

Some forty years ago a good many Little Bitterns were frequently sent alive from Holland to Leadenhall Market, but of late years I have had no offer of this species from that quarter: most of these birds were adults that had been snared at their nests, a large proportion of them were injured about their heads, and seldom lived for any length of time, but I have had fair success in keeping the few young birds that I have obtained; they are, however, delicate, and very restless at night, they frequently become very tame, and their extraordinary attitudes and grotesque actions are very interesting, but, as a rule, they are shy of observation. The only note that I ever heard uttered by this species is, to my ear, best rendered by "woogh," "woogh,"—a sort of deep guttural cough. Although, as I have above stated, the Little Bittern, on its first arrival, may be met

with in all sorts of strange places, I should say, from my own experience in the south of Europe, that its favourite haunts are the patches of tamarisk-jungle that are often to be found in the marshes ; in struggling through these thickets I have frequently come within a few feet, I might say inches, of one or two of these curious birds drawn up close in the attitude that I have attempted to describe, and in Epirus my retriever caught several of them amongst the tamarisks. This species is a more or less common summer migrant to Central and Southern Europe, but is said to be uncommon to the north of the Baltic.

.



BITTERN.

BOTAURUS STELLARIS (Linn.).

Ardea stellaris, *Linn.* S. N. i. p. 239 (1766); *Naum.* ix. p. 159.

Botaurus stellaris, *Macg.* iv. p. 410; *Hewitson*, ii. p. 316; *Yarr.* ed. 4, iv. p. 206; *Dresser*, vi. p. 281.

Le Grand Butor, French; *Grosse Rohrdommel*, German; *Ave-toro*, Spanish.

This bird, formerly common as a resident in the undrained fens and marshes of the United Kingdom, is now virtually a by no means abundant winter visitor, though we occasionally hear of Bitterns found in the "Broad" district of our eastern counties at a time of year that would at least seem to indicate an intention of nesting. This fine species is still common in the great marshes of Central, Eastern, and Southern Europe; in my own experience more abundant in Eastern Sicily than any locality with which I am acquainted. It breeds also in Spain. The Bittern loves reed-jungles, and is almost as nocturnal in habits as the Owls.

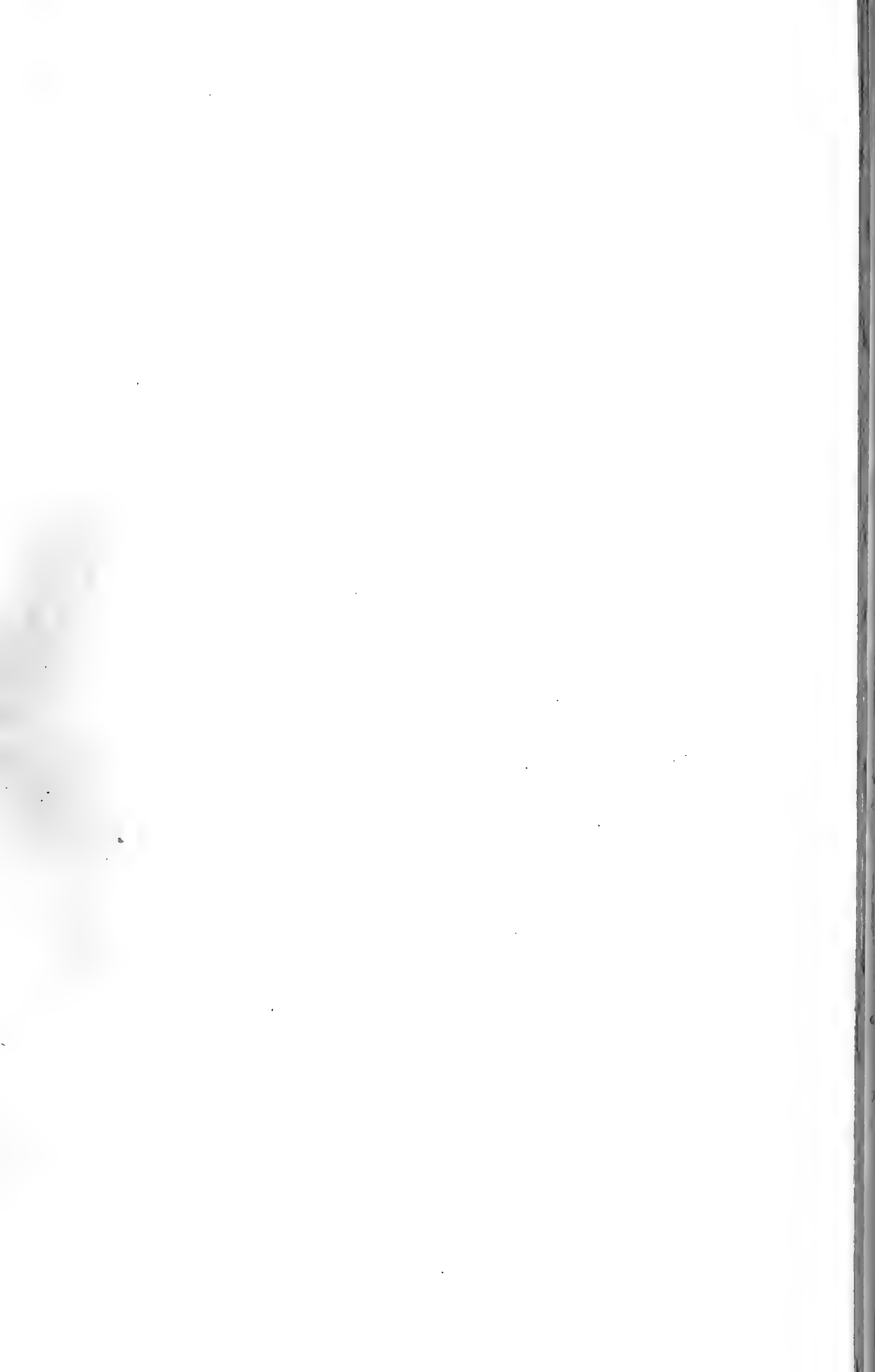
The drawing for the Plate was taken from life in the aviary at Lilford.



$\frac{1}{5}$

BITTERN.
(*Botaurus stellaris*.)

Litho. W. Greve, Berlin





$\frac{1}{3}$

A. Thurburn

AMERICAN BITTERN.
Botaurus lentiginosus (Montagu).

Litho. W. Greve. Berlin.

AMERICAN BITTERN.

BOTAURUS LENTIGINOSUS (Montagu).

Ardea lentiginosa, Montagu, Suppl. to Ornith. Dict. (1813).
Botaurus lentiginosus, Macg. iv. p. 417; Yarr. ed. 4, iv.
p. 213; Dresser, vi. p. 289.

This bird has found its way across the Atlantic to our Islands so frequently as to fully merit a place in the British list as a *bonâ fide* traveller, although, as suggested in the 4th edition of 'Yarrell,' it is of course possible that some of its visits may have been assisted and expedited by "spells" on the spars of the ocean steamers. I do not, however, consider it probable that this sort of assistance has been very frequent, though, from the rarity of the American Bittern in the hands of our English dealers in live birds, it would appear that the bird is seldom imported, and the chances of escapes of course thereby diminished.

The range of this species is stated to extend nearly over the whole continent of North America, from the shores of the Arctic Ocean to Texas and Guatemala; it has also been met with in Cuba and Jamaica.

In general habits, food, and note the American Bittern closely resembles our European species. It is somewhat remarkable that there is no authentic record of the occurrence of this bird on the continent of Europe.





CHROMO-LITHO ART STUDIO, LONDON.

$\frac{1}{6}$

WHITE STORK.

Ciconia alba, *Bechst.*

WHITE STORK.

CICONIA ALBA, *Bechstein*.

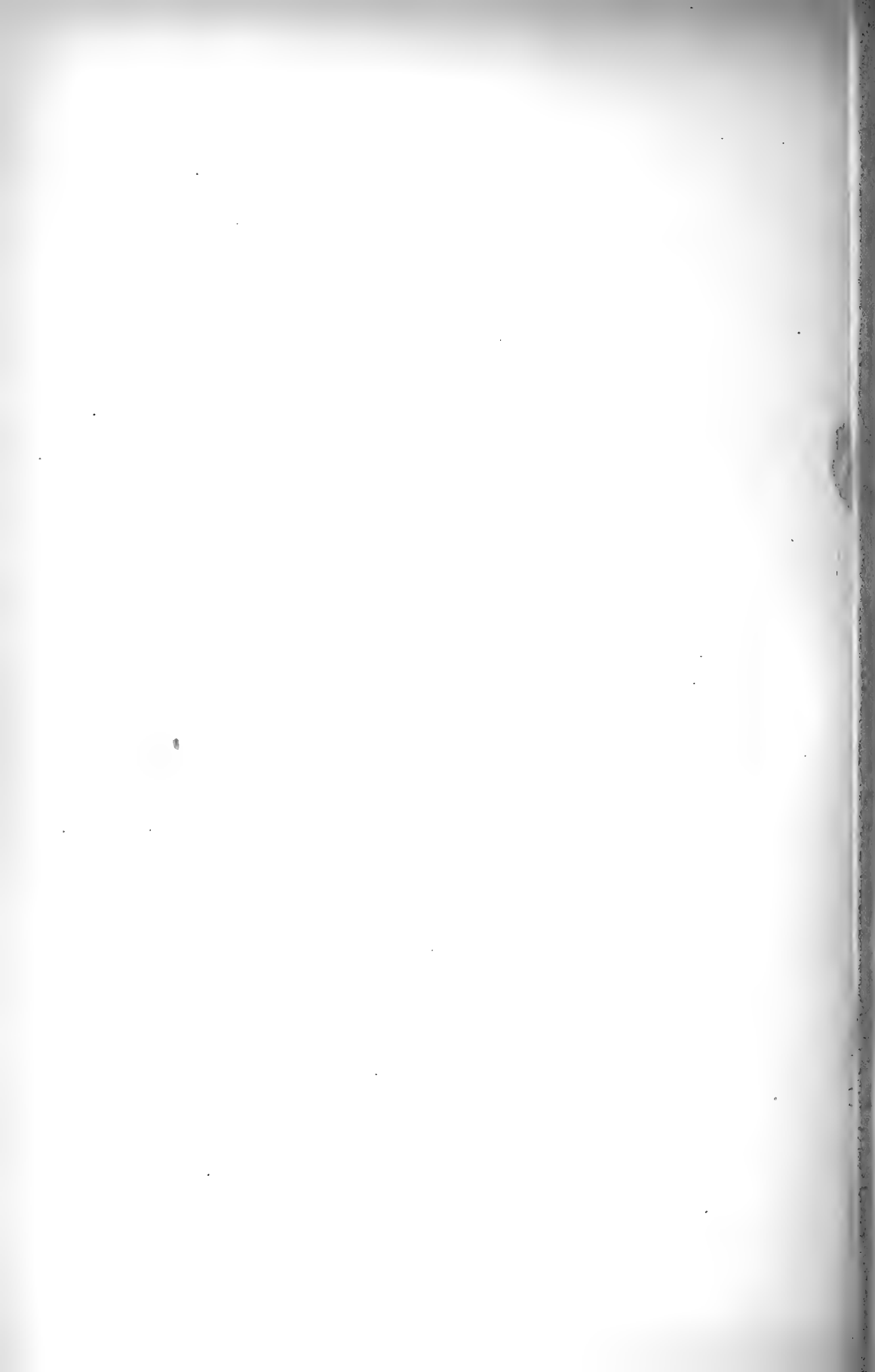
Ciconia alba, *Bechstein*, *Naturg. Deutschl.* iii. p. 48 (1793);
Naum. ix. p. 231; *Macg.* iv. p. 481; *Hewitson*, ii. p. 317;
Yarr. ed. 4, iv. p. 219; *Dresser*, vi. p. 297.

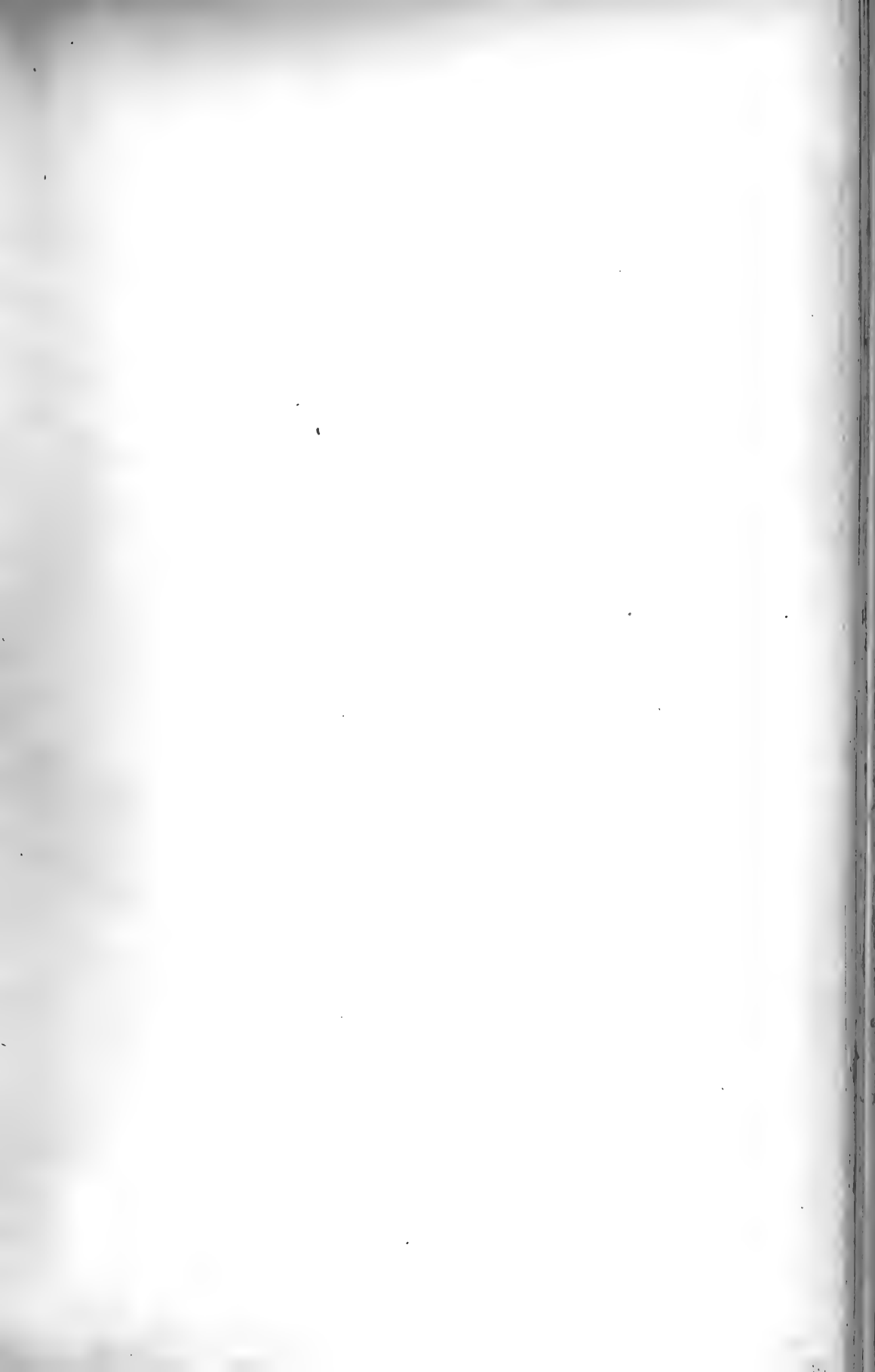
Cigogne, French; *Storch*, German; *Cigüeña*, Spanish.

Although there is, as I believe, no authentic record of the nesting of this very handsome bird in our country, it would seem probable, from the frequency of its visits, especially to our eastern counties, that if unmolested the White Stork would become as regular a breeder in England as it now is in the Netherlands and many districts of Central Europe. But, alas! collectors of, and dealers in, so-called British birds have, with a few most honourable exceptions, no mercy when a comparatively scarce bird is to be obtained, and the misguided Storks that visit us, deluded perchance by the security from human persecution that they have enjoyed for generations amidst our continental neighbours, fall easy victims to the armed "loafers" who infest our coasts and unpreserved marsh-lands. In Holland especially, but by no means there only, the White Stork is protected

and encouraged to remain and nest by the erection of cart-wheels on poles, and boxes, and platforms on house-tops, and, as stated in Yarrell, there are many places in which the dwellers under roofs selected as nesting-places by our bird are considered to be exceptionally favoured by Providence. My own principal acquaintance with the present species has been formed and continued in Spain and European Turkey; in the former country the Storks do not confine themselves to the towns or villages for nesting, although in Seville and Cordoba they nest on many of the church-towers and other lofty edifices, but they have a special liking for the huge wood- and straw-stacks that are often to be found in close proximity to the farmsteads in the open country, and also very frequently select an isolated tree close to human habitations. In Epirus I noticed that almost wherever a branching plane tree shaded the frontage of a roadside "khan," it was occupied by a pair of nesting Storks. I am not aware that these birds are protected by the Law of Islam, but no follower of the Prophet would willingly injure one of them, and I was delighted to see a young Greek forced "to eat a wholesome quantity of stick" for an attempt to steal some Storks' eggs under the eyes of a Turkish kadi. The largest assemblage of Storks that I ever saw was on May 1, 1872, in the great marshes of the lower Guadalquivir; these birds gave me the impression of having only just arrived in the country, but they are frequently to be found nesting in Andalucia in March. The White Stork is virtually omnivorous, and of very great service to man by its destruction of locusts and

grasshoppers, as well as small rodents and reptiles ; I am sorry to confess, however, that I have heard, on most unimpeachable authority, of the Storks making free not only with young game birds, but also with leverets, and from my observation of this species in captivity I can fully believe that nothing eatable would come amiss to their taste. The only sound that I have ever heard produced by the White Stork is a loud clattering of the bill : this is without doubt their love-song, but is often to be heard at seasons when not prompted by passion of any sort, and I never heard it produced during the many fierce encounters that I have witnessed between male Storks both in a wild state and in my own aviaries. With regard to this clattering of the bill, and the protection afforded to the Stork by the Mahomedans, a curious story may be found quoted by my friend Colonel Irby in his very interesting 'Ornithology of the Straits of Gibraltar.'







$\frac{1}{6}$

BLACK STORK.

Ciconia nigra (Linn.).

CHROMO-LITHO ART STUDIO, LONDON.

BLACK STORK.

CICONIA NIGRA (Linn.).

Ardea nigra, Linn. S. N. i. p. 235 (1766).

Ciconia nigra, Naum. ix. p. 279; Macg. iv. p. 485; Hewitson,
ii. p. 319; Yarr. ed. 4, iv. p. 225; Dresser, vi. p. 309.

Cigogne noire, French; *Schwarzer Storch*, German;
Cigüeña negra, Spanish.

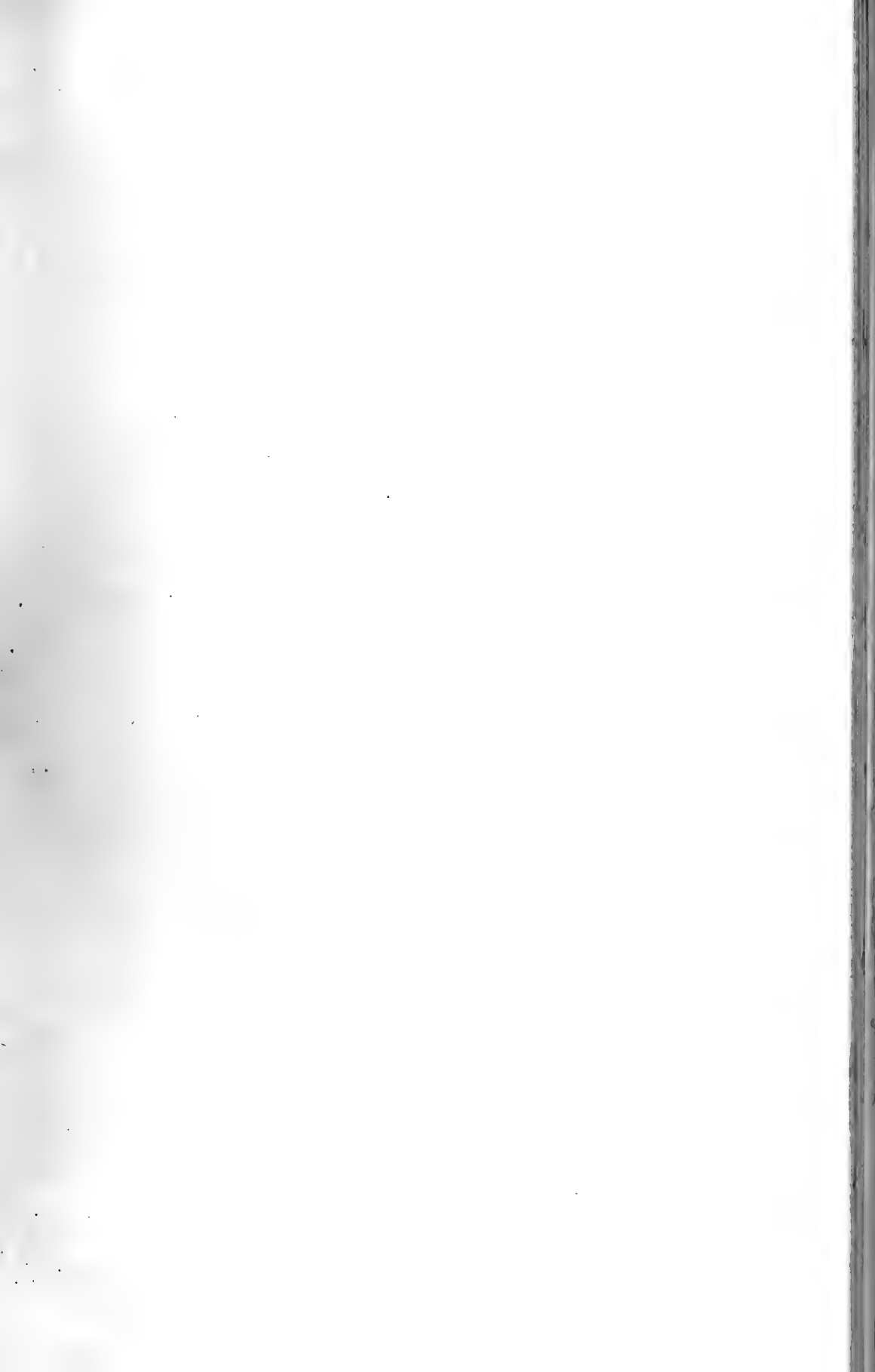
My personal acquaintance with this species in a wild state is confined to a distant sight of a solitary individual amongst a vast congregation of White Storks on the lower marshes of the Guadalquivir in the early summer of 1872, so that the little that I shall say of it is taken from the works of other authors. The Black Stork is a rare straggler to our country; but in the 4th edition of 'Yarrell' is said to breed sparingly in the south of Sweden, Denmark, some of the northern and eastern provinces of the German Empire, Poland, Central and Southern Prussia, the Danubian provinces, and Turkey; the editor adds that it also nests in Spain, and of this fact I have very recently received confirmatory evidence.

This bird differs from the White Stork in shunning

the neighbourhood of the habitations of man, inhabiting secluded marshes and forests, and generally building in high forest trees. It seems that it occasionally takes possession of the abandoned nests of other birds, and not infrequently places its nest in the clefts or small caves of cliffs.

The eggs are said to be four in number, and are of a dull white colour. I have frequently kept this species pinioned at Lilford, and find that with a good range and some protection from severe weather they thrive remarkably well, and, in common with many other naturally shy birds, soon become perfectly tame. They are not very amiable, however, amongst themselves or with other species, and are very rapacious and promiscuous feeders. The only note that I have ever heard from them is a clattering of the mandibles, exactly similar to the well-known rattle of the White Stork.

The drawing for the accompanying Plate was made from life at Lilford. I should mention that this species is a summer visitor to Europe, and is said to winter as far south as Central India.





27

GLOSSY IBIS.

Plegadis falcinellus (Linn.).

Litho. W. Greve, Berlin.

A. Thorburn

GLOSSY IBIS.

PLEGADIS FALCINELLUS (Linn.).

Tantalus falcinellus, Linn. S. N. i. p. 241 (1766).

Ibis falcinellus, Naum. viii. p. 539, xiii. p. 253; Macg. iv. p. 493.

Plegadis falcinellus, Yarr. ed. 4, iv. p. 231; Dresser, vi. p. 335.

Ibis falcinelle, French; *Brauner Sichler*, German; *Morito*, Spanish.

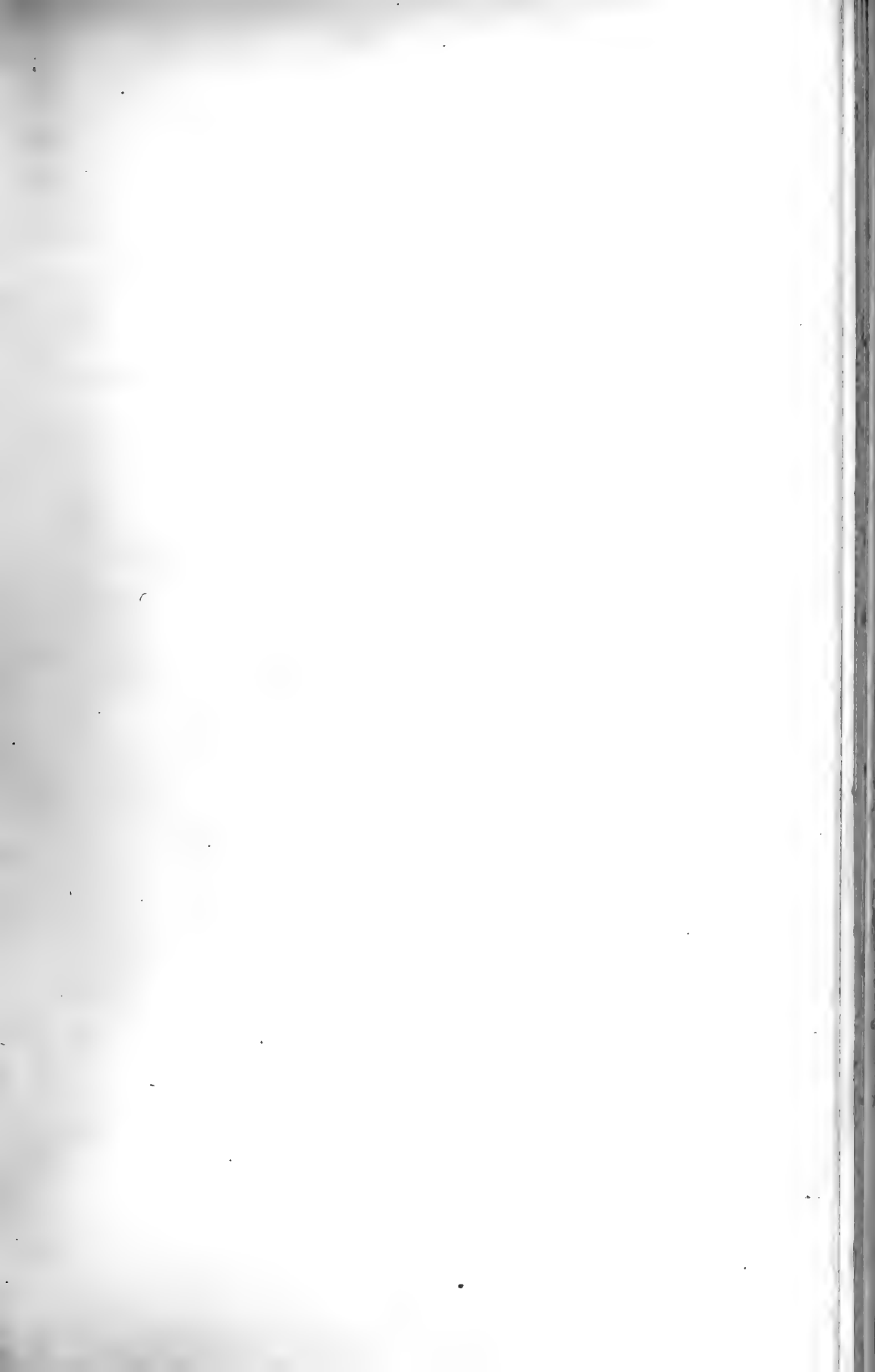
This bird is an uncommon and irregular visitor to the British Islands, although it cannot correctly be called *very* rare; most of its recorded occurrences in the three kingdoms have reference to the months of October and September, but a friend and neighbour of ours in Northamptonshire has a stuffed specimen of this bird (procured in the neighbourhood of Whittlesea) with the date May 31, 1825, written inside the case. My personal acquaintance with this remarkable bird is limited to the Ionian Islands and the south of Spain. On a swampy flat near the town of Corfu I frequently noticed a few Glossy Ibises stalking about in search of food during the months of March, April, and May, but these birds seldom tarried in that locality for more than a few

days, nor could I discover that they remained to breed in any of the many apparently very suitable marshes on the adjacent mainland of the province of Epirus. This bird visits the great marshes of the Guadalquivir in early spring, and some remain to nest in that district, but it was not till the present year (1893) that I ever heard of them breeding there in considerable numbers. For several years past I have received consignments of various species of birds alive from Andalusia, and till this year had only received four of the present species. In sending a list of my requirements for this summer to Seville, I placed after the Spanish name of the Glossy Ibis the words "unos cuantos," which may be liberally translated as a good number, but my readers may judge of my consternation on hearing from one of the collectors in July that he had ninety-five of these birds all alive and at my orders! On my remonstrance as to the excess, my correspondent contented himself with shipping sixty of these birds for me from Gibraltar: every one of these reached London alive and in good condition, and twelve of them are doing well in the aviaries at Lilford.

I find the Glossy Ibis easy to keep, as it is virtually omnivorous, and able to support, without detriment, a considerable amount of cold and damp weather without artificial protection. In general demeanour and habits this Ibis closely resembles the Storks and Spoonbills, and generally, though not invariably, perches high for the night. The only note that I have heard produced by these birds is a decidedly corvine, prolonged, guttural croak.

The figures in the Plate were taken from life at Lilford: the grotesque attitude of the more remote bird is very frequently to be observed in fine warm weather for taking the full benefit of the sun, and is, so far as my experience goes, confined to this bird; at all events I have not observed it in any one of three other species of Ibis now living at Lilford. The under surface of the secondary wing-feathers in certain lights presents a most beautiful iridescent vinous colour, much resembling that of the collar of the Stock-Dove, and very conspicuous when the bird faces the observer with one wing extended to its full length, as depicted in the Plate. On wing, at a distance, the Glossy Ibis very much resembles a Cormorant in appearance, but in fashion of flight approaches more closely to the White Spoonbill. The nests of this species are placed either in dense jungles of reed or, not uncommonly, in low trees or bushes in the marshes, and are composed of broken reed-stems, coarse sedge, and sticks. The eggs are usually four in number, and are of very rich greenish blue.







$\frac{1}{6}$

Litho. W. Greve, Berlin.

SPOONBILL.
Platalea leucorodia, Linn.

SPOONBILL.

PLATALEA LEUCORODIA, Linn.

Platalea leucorodia, Linn. S. N. i. p. 231 (1766); *Macg.* iv. p. 503; *Hewitson*, ii. p. 320; *Yarr.* ed. 4, iv. p. 237.

Platalea leucorodius, *Naum.* ix. p. 312.

Platea leucorodia, *Dresser*, vi. p. 319.

Spatule blanche, French; *Löffler*, *Löffel-Reiher*, German;
Espátula, *Paletón*, *Cuchareta*, Spanish.

This is one of the many species that formerly bred in various parts of our country, but, owing to drainage, cultivation, and the gun, is now only known in England as an accidental and irregular visitor; a few still visit our shores almost every year, and I regret to say that the records of their appearance are generally accompanied by details of the slaughter of one or more of these harmless and very ornamental birds.

The Spoonbill still nests annually in Holland, but is steadily decreasing in numbers in that country, owing to the causes above mentioned: an interesting account of the birds and one of their breeding-localities in the neighbourhood of Amsterdam will be found at p. 240 of the 4th edition of Yarrell's 'British Birds,' and Mr. P. L. Sclater and Mr. Seebohm have also recorded their experiences on the same subject in the 'Ibis' and the 'Zoologist.' The nests are generally built on the

ground on mud amongst reeds or high sedge, sometimes many together, though I am acquainted with more than one instance of a pair of these birds nesting alone apart from others of their species, and there are many records of their nesting in high trees. The eggs are white, with rust-coloured spots, and generally four in number.

I have met with the Spoonbill very frequently in Andalusia during the summer, and a flock of eighteen frequented the harbour of Santander in May 1876. I also found one near Vigo in the winter of 1878-79, but have reason to believe that it was a wounded bird; at all events the Spoonbill is a summer visitor to those parts of Europe that it frequents. Away from its breeding-haunts our bird is generally wary, and from the character of its feeding-grounds (open expanses of bare mud) difficult of approach. The snowy white of the plumage of the adults and the curious manner in which the bird feeds, advancing in line and sifting the soft mud between the mandibles with a sort of swinging motion that reminds one of mowers in a meadow, cannot fail to attract attention.

In captivity the Spoonbill becomes exceedingly tame, and is a very promiscuous feeder, but not a very hardy bird; any lengthened exposure to cold winds is very detrimental, and hard ground soon produces swellings in the feet, from which this species seldom recovers. A good many Spoonbills, old and young, are sent to Leadenhall Market from Holland every summer.

This bird is a fairly good swimmer, but does not appear to be so much at its ease in the water as the Common Heron and some of the Cranes.



FLAMINGO.

PHŒNICOPTERUS ROSEUS, *Pall.*

Phœnicopterus roseus, *Pallas*, *Zoogr. Rosso-Asiatica*, ii. p. 207; *Yarr.* ed. 4, iv. p. 244; *Dresser*, vi. p. 343.

Flammant, French; *Flamenco*, Spanish; *Rosenfarbiger*, *Flaming*, German; *Fenicottero*, Italian.

Four occurrences of the Flamingo in England are recorded by Mr. Saunders in the fourth volume of Yarrell's 'British Birds,' with the particulars concerning them.

The bird is common in the delta of the Rhone and in parts of Spain, and thence spreads eastwards and southwards from the basin of the Mediterranean to Lake Baikal, and over the whole of Africa, India, and Ceylon.

Lord Lilford's account of the breeding of the Flamingo in the great alluvial plains of the Guadalquivir in Southern Spain, called the "Marisma," will be found in the 'Proceedings of the Zoological Society of London' for 1880, page 446. [O. S.]



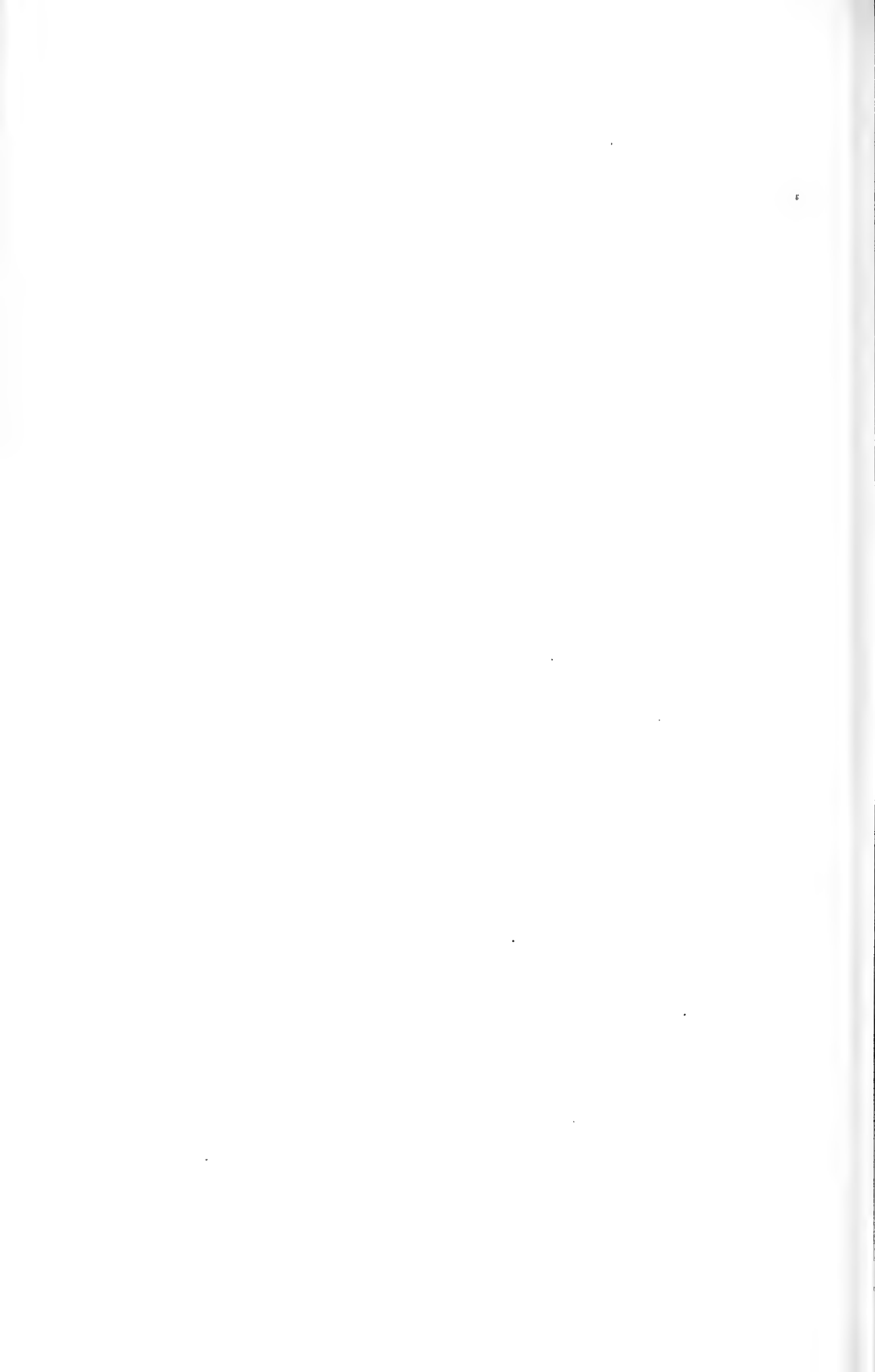
Litho. W. Greve, Berlin.

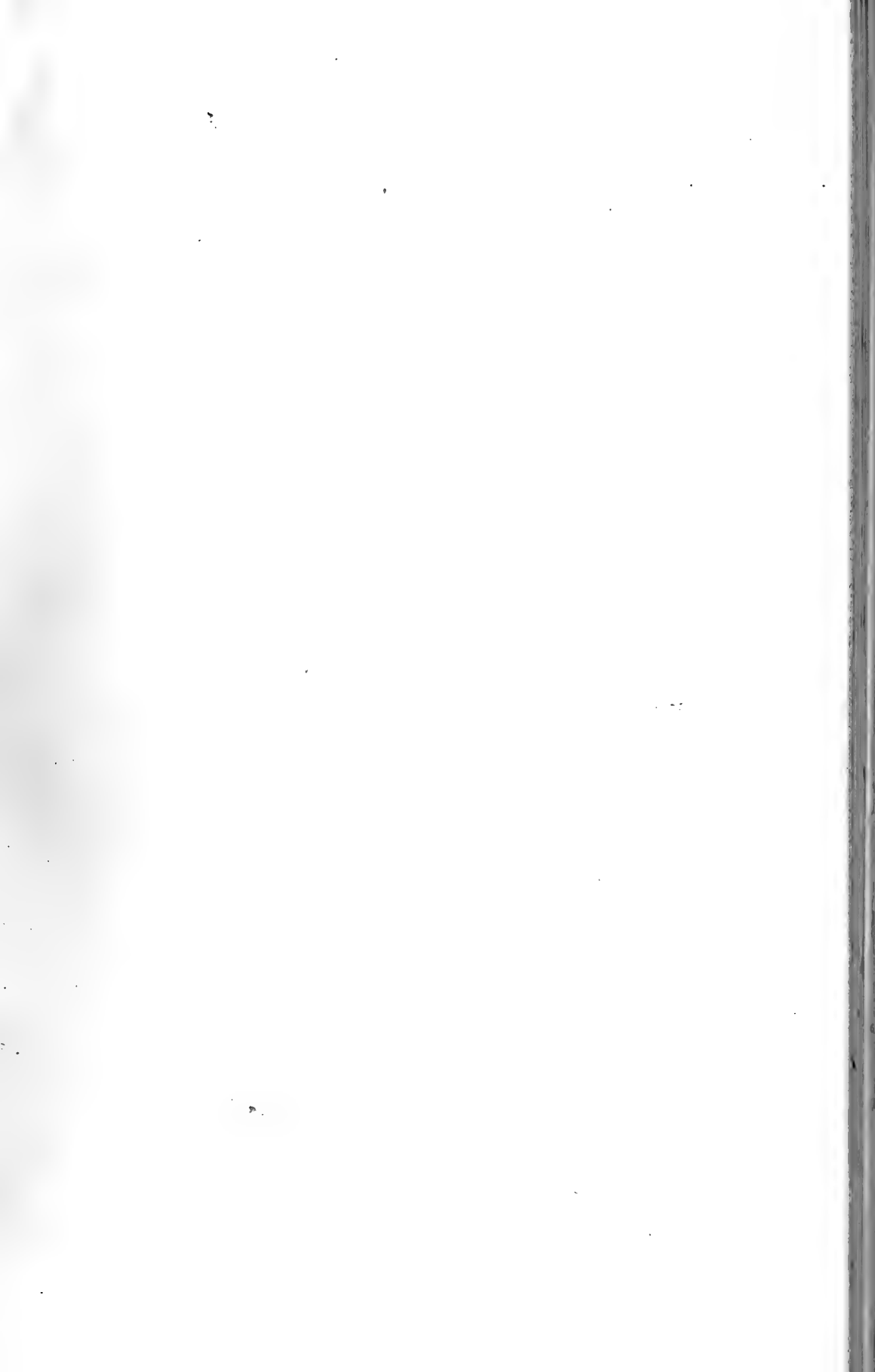
FLAMINGO.

Phoenicopterus roseus, *Pall.*

1/8

A. Theobald







1
5

GREY LAG GOOSE.

Anser cinereus, Meyer.

Litho. W. Greve, Berlin.

Althorburn

GREY LAG GOOSE.

ANSER CINEREUS, Meyer.

Anas anser, Linn. S. N. i. p. 197 (1766).

Anser cinereus, Meyer, Taschenb. deutsch. Vögelk. ii. p. 552 (1810); Naum. xi. p. 229; Yarr. ed. 4, iv. p. 253; Dresser, vi. p. 355.

Anser ferus, Macg. iv. p. 589; Hewitson, ii. p. 382.

Oie cendrée, French; *Grau-Gans*, German; *Ganso*, *Ganso bravo*, *Oca*, Spanish.

This species, although the only one of its family that is known to breed in a wild state in Great Britain, is considered to be the rarest of the "Grey Geese" that visit our Islands on their autumnal migration. My own experience in this respect is limited to the fact that most of the few strings of Wild Geese that pass southwards along the valley of the Nene in August and the first half of September are composed wholly or in part of Grey-Lags. I am led to this conclusion by the call-note of these early migrants, which at once distinguishes them from any other British *Wild* Goose, but almost exactly resembles that of our domestic race. I must, however, admit that these travellers never, or very rarely, alight in our neighbourhood, and I therefore have not an opportunity of verifying my opinion by

examination of a fresh specimen. My principal acquaintance with this Goose was formed upon the great marshes of the lower Guadalquivir, where we met with it in enormous numbers in February and March 1882. In that district it is by far the most numerous, I might almost say the only representative, of its family. I have also met with it on the western shores of European Turkey, but there it is not the prevalent species.

To those of my readers who are not acquainted with this bird I may state that it is with good reason supposed to be the original progenitor of our domestic race of Geese, and very closely resembles its descendants in plumage, pugnacity, and, as I have said, in voice. It may be distinguished from all our other Wild Geese by its superior size, and, with that premise, the white "nail" of the beak and pale flesh-coloured legs. This species still breeds in certain counties of Scotland and some of the Hebrides, but is decreasing in numbers, and many of these Geese have become semi-domesticated in these districts.

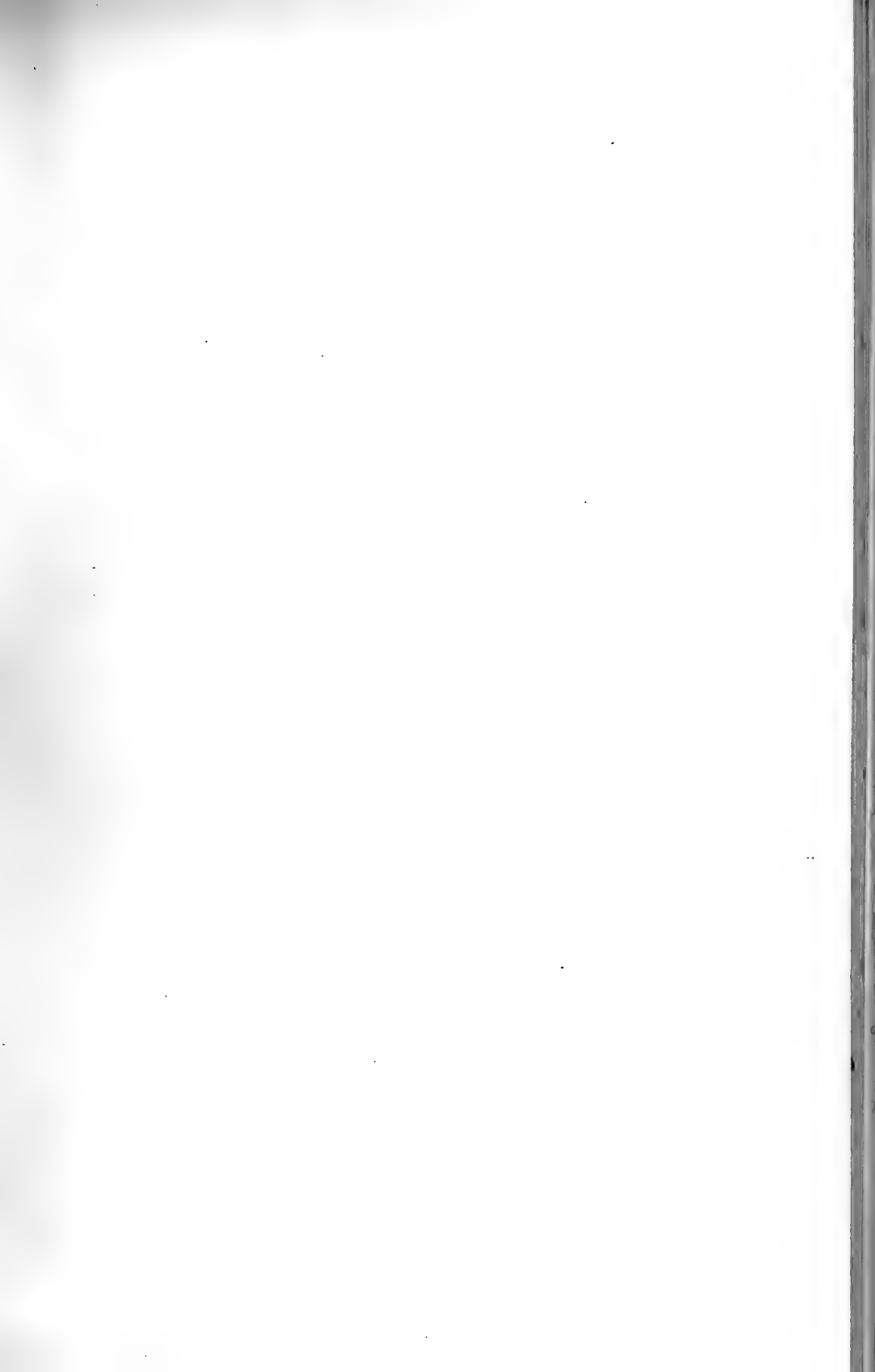
Mr. A. Thorburn has very kindly, at my request, furnished me with a few particulars relating to the present bird, supplied to him by Mr. John A. Dixon, of Inveran, Ross-shire, for my benefit. The latter gentleman writes:—"I am sorry to say that the Grey Lag Goose is yearly becoming rarer in these parts; I used to know of three or four lochs besides Loch Maree where there was always a nest or two. Now I doubt whether more than one or two pairs in all breed annually in this neighbourhood. It is of course the only really *Wild* Goose that nests in Britain. With

such a small stock it is difficult to speak certainly as to migration. I doubt whether they do migrate, for I have seen some about in almost every month of the year. My own flock, most of which are practically wild, never leave, or, rather, never have left, till this summer (1893), when they were absent for two months; but I ascertained that they were only at the other end of Loch Maree, and they have all returned now (September 10, 1893). The perfectly Wild Grey-Lags all nest on inland lochs, and when their young are able they make their way to islands in the sea, whence they resort to adjacent cultivated land or other spots where grass is plentiful. Of course it is possible that some may go south, especially from the Hebrides, in some parts of which they are still rather more numerous. The flocks of Wild Geese that we sometimes see passing here appear to be either Pink-footed or White-fronted. I thought that they were all the former, until on February 23, 1893, I shot one which proved to be White-fronted."

For the origin of the term "Lag" as applied to this species, I will merely say that it has obviously no connexion with "leg," and has probably reference to the former "lagging" of this species to breed in our fens-districts, from which all the other species of Wild Goose departed at the approach of summer. I quote this, not quite verbatim, from the 4th edition of Yarrell.

This Goose is said to breed in Iceland, on the west coast of Norway, in Denmark, Sweden, Finland, Russia, some parts of Germany, and very exceptionally in Southern Spain. I have good reason to believe that it

also breeds in the great marshes on the lower course of the Danube. In captivity this Goose soon becomes perfectly tame, often aggressive, but at Lilford has never bred either with its own species or with any of its congeners. In other places, however, it has, as might be expected, occasionally paired with the domestic race, and the offspring in at least one instance are said to have been prolific. An old gander of this species that we winged on the Guadalquivir in 1882, and kept on the deck of my yacht during a subsequent cruise in the Mediterranean, very soon made himself master of the "situation," and drilled our dog, some Gulls, and a Heron into abject submission and fear. This bird is still alive, and in command of a small flock of other pinioned Geese of his own and other species, on one of our ponds at Lilford at this time of writing—November 1893.



WHITE-FRONTED GOOSE.

ANSER ALBIFRONS (Scop.).

Branta albifrons, *Scopoli*, Ann. I. Hist. Nat. p. 69, no. 87 (1769).

Anser albifrons, *Naum.* xi. p. 351; *Macg.* iv. p. 609; *Hewitson*, ii. p. 387; *Yarr.* ed. 4, iv. p. 261; *Dresser*, vi. p. 375.

Anser intermedius, *Naum.* xi. p. 340.

Oie rieuse ou à fronte blanc, French; *Blässen-Gans*, German; *Ganso, Angelito* (Andalucia), Spanish.

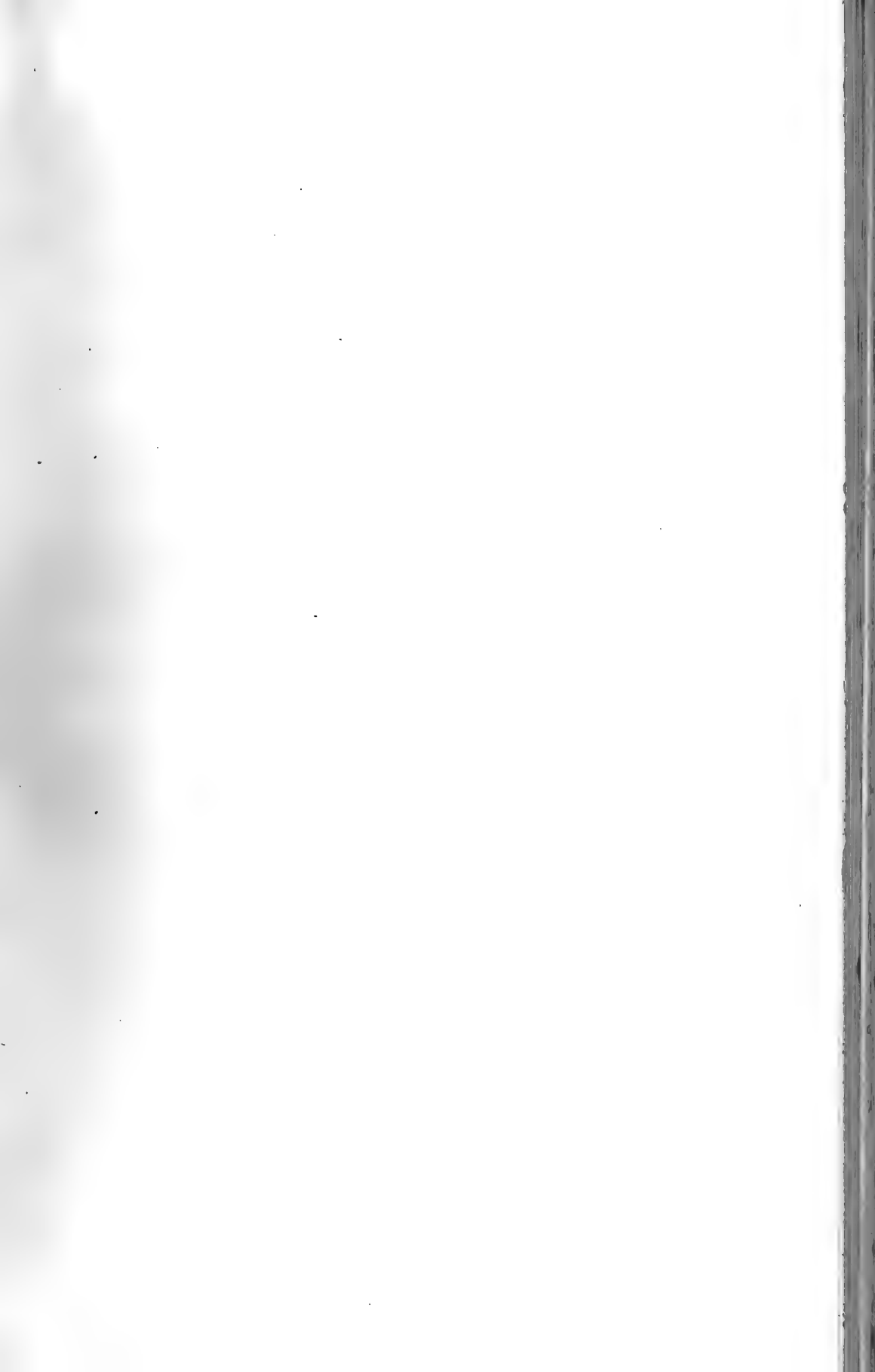
This Goose is a winter visitor to our islands, more common in Ireland and certain districts on the west coast of Scotland than elsewhere. The Arctic regions of Asia are said to be the principal breeding-resort of this species, whose nest has never as yet, I believe, been discovered in any part of Europe. The cry of the White-fronted Goose has gained for it the nickname of *Laughing* Goose, and is certainly very unlike that of any of its British congeners, from whom it also differs in the excellence of its flesh for the table.



WHITE-FRONTED GOOSE.
Anser albifrons (Gmelin).

Litho. W. Greener, Berlin







A. Thorburn

1/5

BEAN - GOOSE.

Anser segetum (J. F. Gmelin).

Litho. W. Greve, Berlin.

BEAN-GOOSE.

ANSER SEGETUM (J. F. Gmelin).

Anas segetum, Gmelin, Syst. Nat. i. p. 512 (1788).

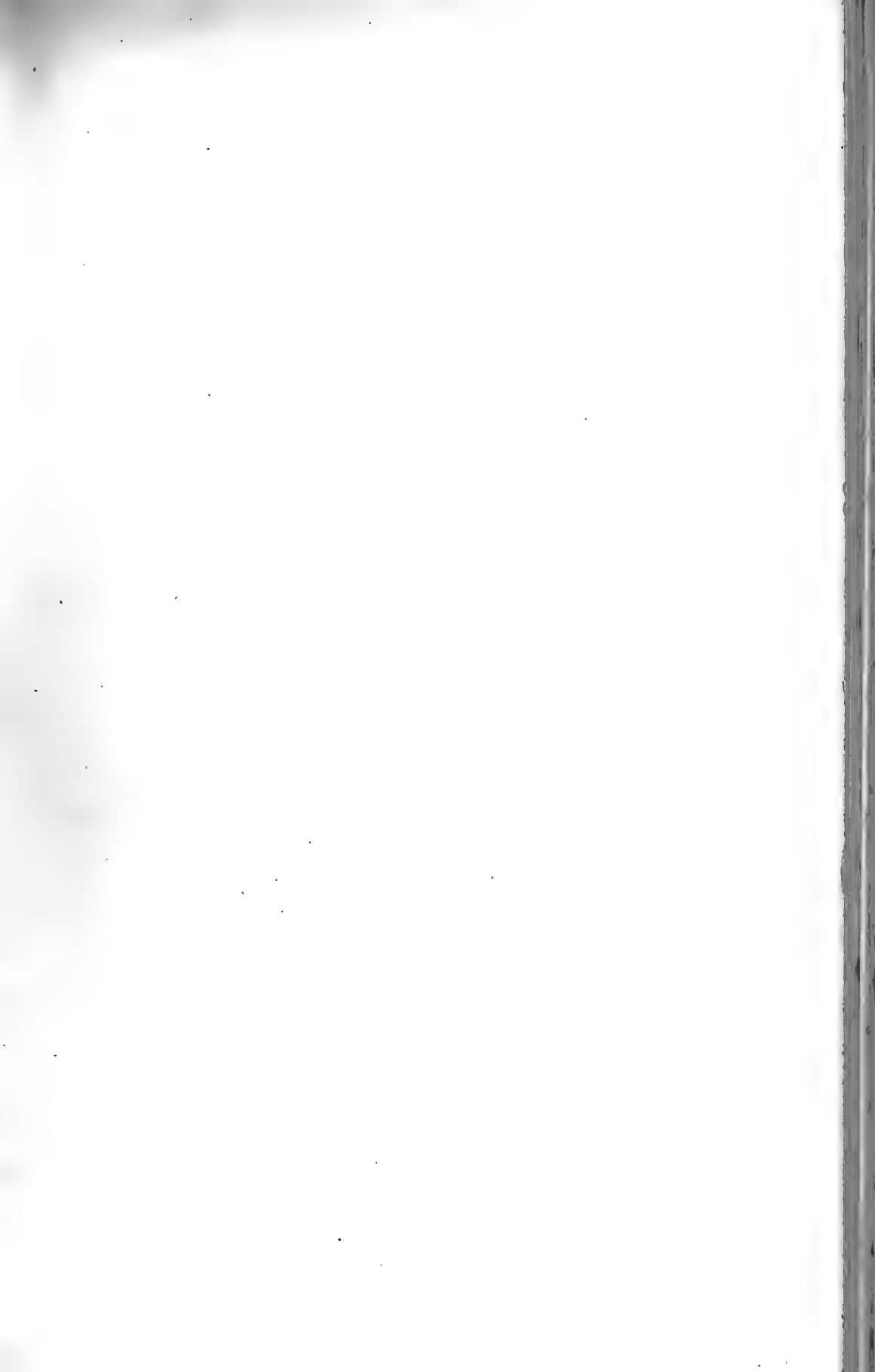
Anser segetum, Naum. xi. p. 302; Macg. iv. p. 595; Hewitson,
ii. p. 385; Yarr. ed. 4, iv. p. 265; Dresser, vi. p. 363.

Anser arvensis, Naum. xi. p. 277.

Oie vulgaire, French; *Saat-Gans*, German; *Ganso bravo*,
Oca, Spanish.

This species is a regular autumnal migrant to this country, but is less common in the eastern counties of England than its very close relation the Pink-footed Goose, whilst in Ireland, according to my own experience, it is of much more frequent occurrence than the latter species, in fact, I do not remember having met with any of the Pink-footed in that country, wherein I have shot several and seen thousands of Bean-Geese. I am inclined to look upon the present bird as the most maritime of the "grey" Geese in its habits; but these habits of course depend greatly upon the weather and "questions of supply," and the Bean-Goose is to be met with far inland throughout the winter in favoured localities. It was exceedingly abundant during the

severe weather of January 1855 on the great bogs in the neighbourhood of Templemore, till they were frozen hard, and I subsequently saw large flocks on various parts of the east and west coasts of Ireland. The present species averages considerably larger than the Pink-footed, but the only constant external character that distinguishes it from that bird is its greater comparative length of bill. A difference in voice between these two species of Goose is alluded to by Mr. H. Saunders in his 'Manual,' but certainly escaped my notice in the days when a Wild Goose chase offered invincible attractions for me, and I was able to indulge my taste in that pursuit, although I could always distinguish the differences of voice between the Grey Lag, the White-fronted, and the present bird. The Bean-Goose breeds in Northern Europe and Asia, and visits the eastern portions of the Mediterranean during the winter. It thrives well in a pinioned condition if allowed plenty of room, but none of those so kept at Lilford have ever, to my knowledge, paired *inter se*, though a male of this species has for two successive years mated with a White-fronted Goose, and, at this time of writing (October 1893), two hybrids thus produced are in our aviary; the elder of these, hatched in 1892, is a singularly handsome bird, presenting the white forehead of its female parent, with the brilliant orange legs and feet of its father.



PINK-FOOTED GOOSE.
Anser brachyrhynchus, Baitlon.



PINK-FOOTED GOOSE.

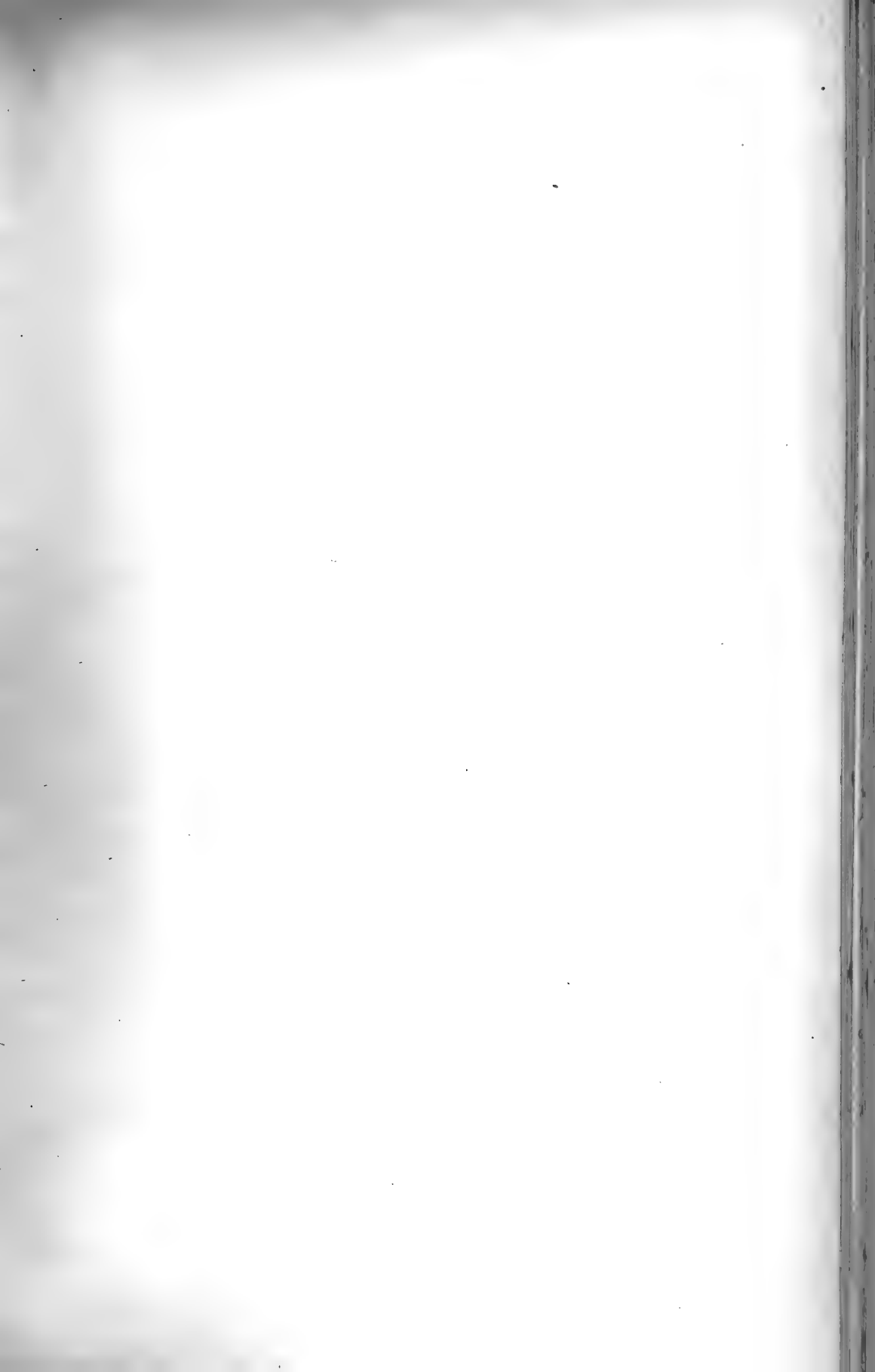
ANSER BRACHYRHYNCHUS, Baillon.

Anser brachyrhynchus, *Baillon*, Mém. de la Soc. Roy. d'Em. d'Abbev. 1833, p. 74; *Macg.* iv. p. 602; *Hewitson*, ii. p. 386; *Yarr.* ed. 4, iv. p. 270; *Dresser*, vi. p. 369.

Oie à bec court, French.

This is decidedly the most common of the "Grey" Geese that visit the eastern districts of England in the autumn and winter, but it was not till 1839 that it was clearly distinguished from its very close congener, the Bean-Goose, in a paper by Mr. A. D. Bartlett, read before the Zoological Society. I may here mention that the most constant and certain external distinctions between this species and the Bean-Goose are the proportionate shortness of the bill and the smaller size of the subject of this article; in fact, I am of opinion that the best English name for this bird would be Short-billed Goose, as the pink colour of the legs and feet is by no means an invariable character. I have seen very large flocks of this species in West Norfolk on various occasions in October, November, and December, and a great many used to frequent the valley of the Nene in

the neighbourhood of Lilford in former years, during the winter months. Of late years, although a good many wild Geese pass along our valley between October and April, very few alight in our neighbourhood, and none make any permanent stay with us, as they were wont to do before 1860. I have been frequently assured that on certain pasture-lands near Gretton, in Northamptonshire, boys were regularly employed to scare the wild Geese, on account of the damage done to the grass, not only by the voracity, but also by the excrement of the birds. I know nothing, except from others, of the habits of this species on our coasts, but here, in Northamptonshire, the flocks used to remain in the most open parts of our water-meadows during the daytime, and wander about on wing with loud outcry as darkness or moonlight came on ; they did certainly occasionally visit our stubbles by night, but I only remember one instance of having noticed them on arable land during the hours of daylight. I must, however, confess that these remarks may apply equally to the Bean-Goose, as that species used also to occur in our neighbourhood, and so closely resembles the Pink-footed in habits, general appearance, and cry, that it was almost impossible to distinguish one from the other, except when "in hand." The present species breeds certainly in Spitzbergen, and eggs supposed to belong to it have been found in Iceland. I have kept several of this species, pinioned, on my fowl-ponds, but they have never bred, or, so far as I know, even laid eggs at Lilford, and seem rather to shun than court the company of other species.



SNOW-GOOSE.

CHEN HYPERBOREUS (*Pall.*).

Anser hyperboreus, *Pall.* Spicilegia Zoologica, i. pt. 6, p. 25 (1769).

Chen hyperboreus, *Yarr.* ed. 4, iv. p. 275; *Dresser*, vi. p. 413.

Schnee Gans, German.

This is a species of which I know absolutely nothing, except from books, so I will confine myself to quoting from Mr. H. Saunders's 'Manual' to the effect that five have been obtained in Ireland—three of them in co. Wexford during the winter of 1871, and the other two from a flock of seven near Belmullet, co. Mayo, in October 1877. Of the two latter birds, one, a male, paired with a Common Goose and had young. Another specimen was identified on the coast of Cumberland by the Rev. H. A. Macpherson and others in August 1884. The home of this Goose is in North America.

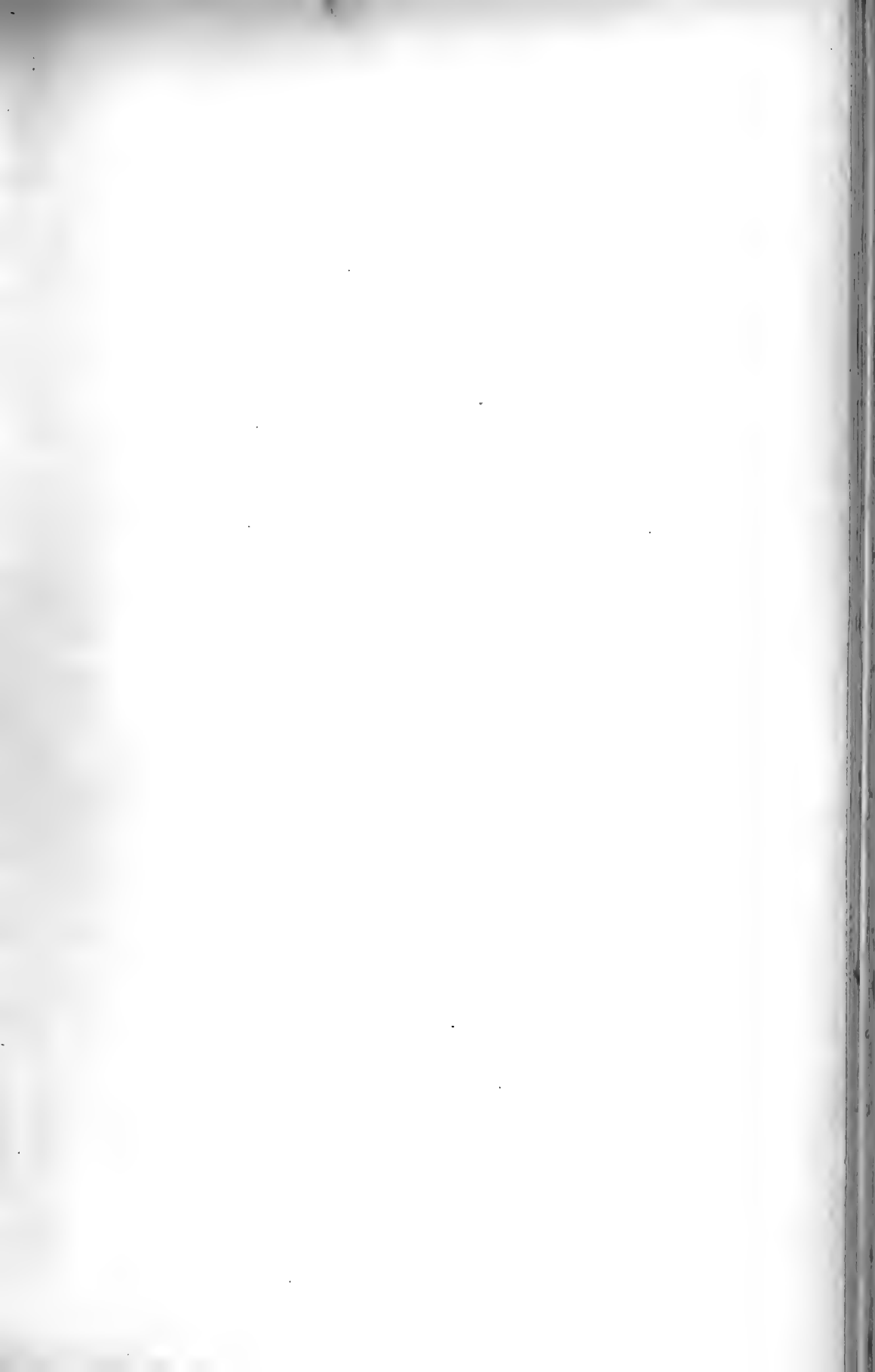


Litho. W. Greve, Berlin.

1
4

SNOW-GOOSE,
Chen hyperboreus (Pallas).







$\frac{1}{3}$

RED-BREADED GOOSE.

Bernicla ruficollis (Pall.).

RED-BREASTED GOOSE.

BERNICLA RUFICOLLIS (Pall.).

Anser ruficollis, Pallas, Spicil. Zool. fasc. vi. p. 21, tab. v. (1769); Naum. xi. p. 408.

Bernicla ruficollis, Macg. iv. p. 634; Yarr. ed. 4, iv. p. 281; Dresser, vi. p. 403.

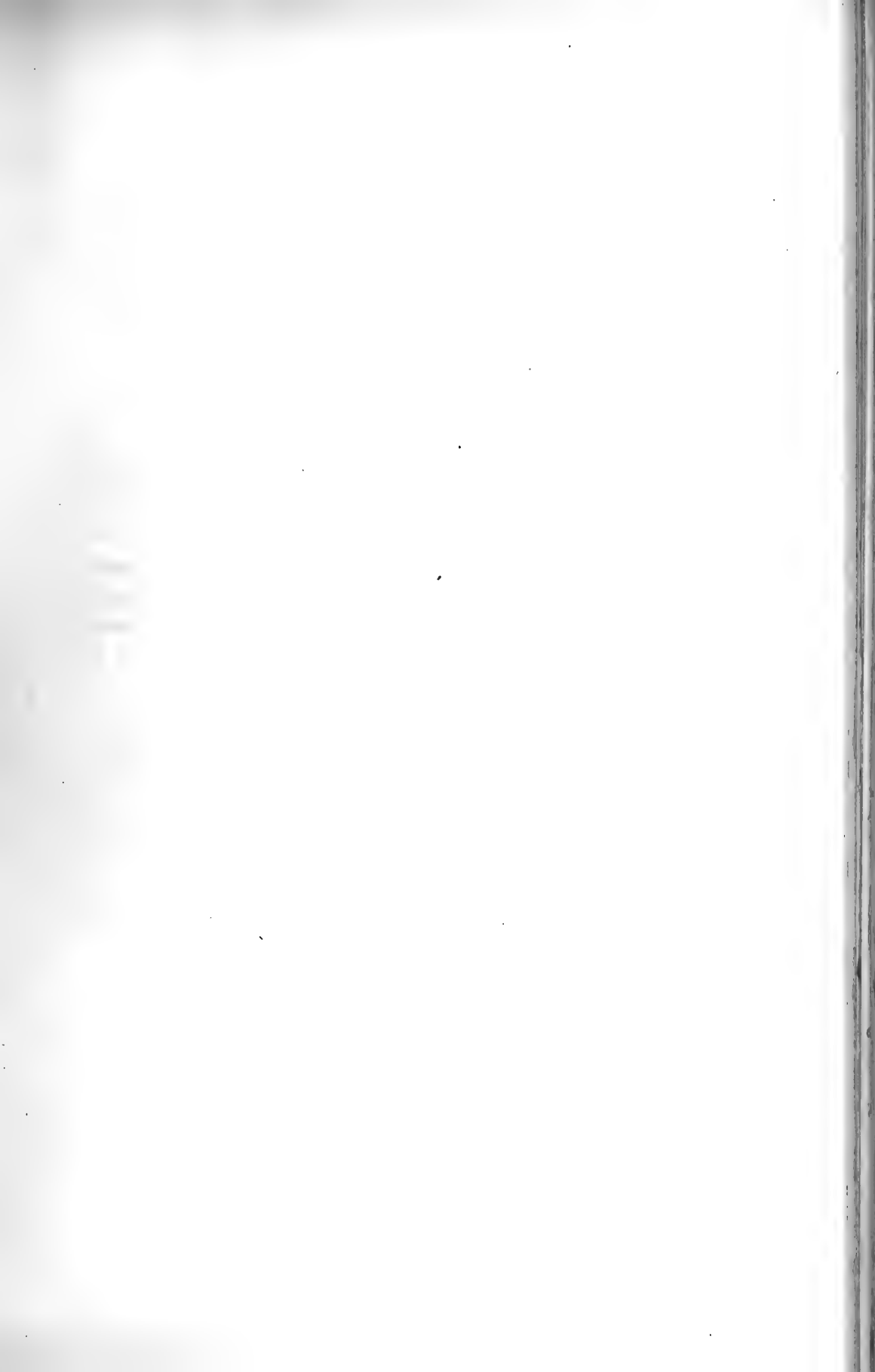
Bernache à cou roux, French; *Rothhals-Gans*, German.

As I can add nothing from personal experience to the history of this very handsome bird, I will only state that it is a rare straggler to Europe from its breeding-haunts in North-western Siberia; it is said to visit the Caspian in enormous flocks during the winter months. There appears to be about seven authentic records of the occurrence of this Goose in our Islands, besides several that require confirmation. The latest quoted as satisfactorily proven by the editor of the 4th edition of 'Yarrell,' was sent from Maldon in January 1871, and was in the collection of Mr. John Marshall, of Taunton. I have a skin of this species, labelled by the late S. Stafford Allen "Alexandria, December 2nd, 1874"; but although it is represented in some of the most

ancient known paintings in the world, and was apparently well known to the former dwellers in the valley of the Nile, it is now said to be as rare in Egypt as in England.

Mr. H. Seebohm obtained an egg of this bird, taken by some seamen, who shot the parent bird from the nest in the delta of the Yenesay, and subsequently saw several old Red-breasted Geese with their young broods on the banks of that great river.

I well remember the beauty and extreme tameness of one of these Geese that lived for many years in the Gardens of the Zoological Society; this bird was supposed to have paired with a Brent Goose. I may conclude by adding that it was a female, and the only living individual of its species that I ever saw.



212

212



Althorbiltu

$\frac{1}{3}$

BARNACLE GOOSE.
Anser leucopsis (Bechstein).

Litho. W. Greve, Berlin.

BARNACLE GOOSE.

ANSER LEUCOPSIS (*Bechst.*).

Anas leucopsis, *Bechst.* Orn. Taschenb. ii. p. 424 (1803).

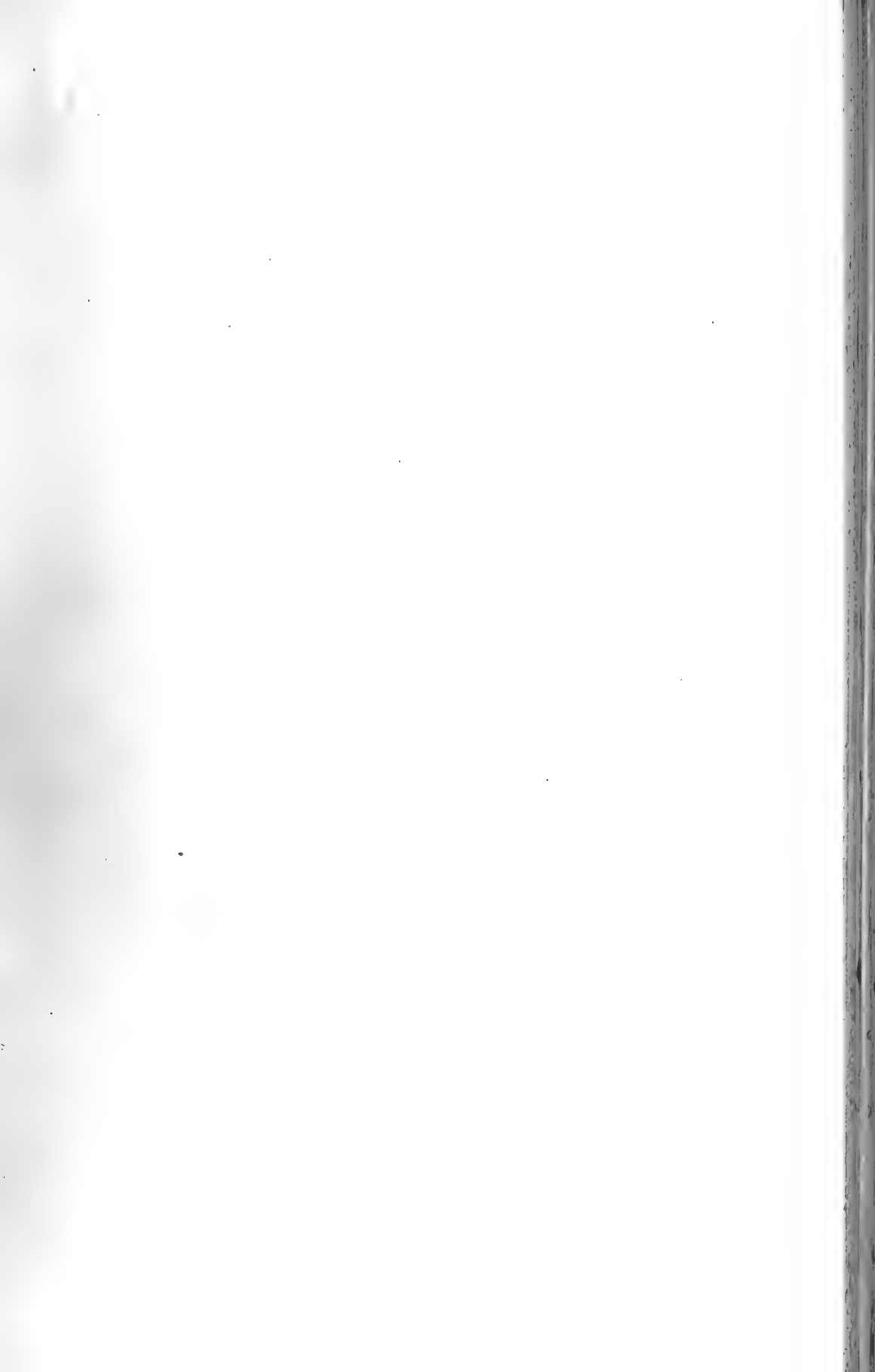
Anser leucopsis, *Naum.* xi. p. 378; *Hewitson*, ii. p. 388.

Bernicla leucopsis, *Macg.* iv. p. 622; *Yarr.* ed. 4, iv. p. 286;
Dresser, vi. p. 397.

Oie-bernache, *Bernache nonnette*, French; *Bernakel-Gans*,
Weisswangen -Gans, German.

As I know nothing whatever of this bird in a wild state from personal observation, I must refer my readers to more fortunate authors for an account of its habits. It appears that the nesting-habits of the Barnacle Goose have still to be discovered; it is a winter visitor to our islands, rarely met with on the east coasts, but occasionally very abundant on the west of Great Britain and on both sides of the north of Ireland. In captivity this species thrives remarkably well and breeds freely, but its pugnacity renders it a troublesome neighbour to other nesting wild-fowl.







2
7

BRENT GOOSE
Bernicla brenna (Pall.)

Litho. W. Greve, Berlin.

BRENT GOOSE.

BERNICLA BRENTA (Pall.).

Anser brenta, *Pall. Zoogr. Rosso-As.* ii. p. 229 (1811);

Hewitson, ii. p. 389.

Anas bernicla, *Linn. S. N.* i. p. 198 (1766).

Bernicla brenta, *Macg.* iv. p. 629; *Yarr. ed.* 4, iv. p. 290;

Dresser, vi. p. 389.

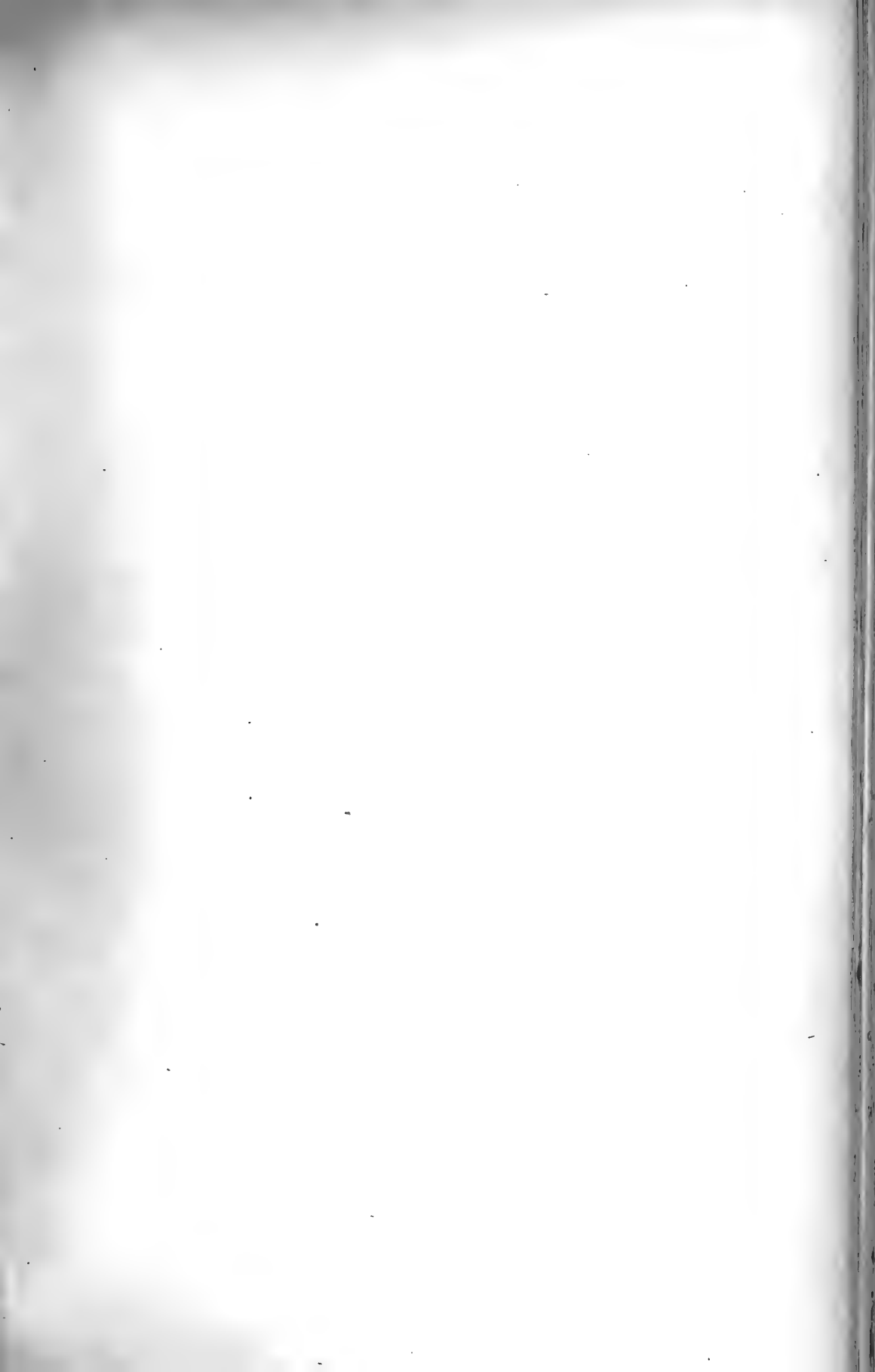
Anser torquatus, *Naum.* xi. p. 393.

Bernache cravant, French; *Ringel-Gans*, German.

Although this bird frequently occurs in vast numbers on some of our coast districts, I have never had any opportunity of observing it in a wild state, and am only acquainted with its habits in captivity and its superlative excellence from a culinary point of view. This being the case, I am compelled to quote from my standard authority, the 4th edition of 'Yarrell,' to the following effect:—The Brent Goose is a regular winter visitor to the shores of most of our maritime counties, where it remains through the cold months, particularly on the east and south coast. Its food consists principally of marine vegetables, especially of sea-grass and laver

(*Ulva latissima*); on these plants it resorts to feed as soon as they are left exposed by the ebbing of the tide, both by day and night. During high-water time the flocks of Brent remain out at sea. This Goose breeds in immense numbers on Spitzbergen and the neighbouring islands, Novaya Zemlya, the coasts and islands of Arctic Siberia, and the land to the north as far as man has yet penetrated. Two races or forms of this species are said to visit our shores, of which the one with the underparts somewhat light-coloured comes to us from the Atlantic; the darker and more common form from the north-east. The similarity of the calls of a flock of Brent Geese to the sound of a pack of hounds in full cry has been alluded to by many writers. The Brent Goose rarely occurs far from the salt-water, and in my experience does not thrive for any length of time in captivity upon ponds: probably some one or other species of seaweed or other marine product is absolutely essential to the continued well-being of this bird; but it is somewhat singular that it should seldom or never breed, and gradually pine and die in circumstance that agrees perfectly with its very close congener, the Bernacle Goose.

For excellent accounts of the Brent Goose from the sporting point of view, I must refer my readers to the classic 'Hawker,' and the recent most interesting writings of Mr. Abel Chapman.



MUTE SWAN.

CYGNUS OLOR (J. F. Gmelin).

Anas olor, J. F. Gmelin, S. N. i. p. 501.

Cygnus olor, Naum. xi. p. 442; Dresser, vi. p. 419; Yarr.
ed. 4, iv. p. 324.

Cygne, French; *Cisne*, Spanish; *Schwan*, Dutch; *Zwaan*,
German.

Full accounts of the habits and history of the Mute Swan are to be seen in Yarrell's work, and also in Dresser's 'Birds of Europe' and other works. Though found in a wild state throughout the greater part of Europe, it is reputed to have been introduced into England from Cyprus by Richard I. (1189-1199), and records of it in this country extend back certainly to the thirteenth century. It is now so well known as to require no further comment here.

The usual colour of the Cygnets in their first down and early feather is greyish brown, but some birds are in these states white tinged with buff. The latter were separated by Yarrell as a distinct species and called *Cygnus immutabilis*, or Polish Swan.

[O. S.]



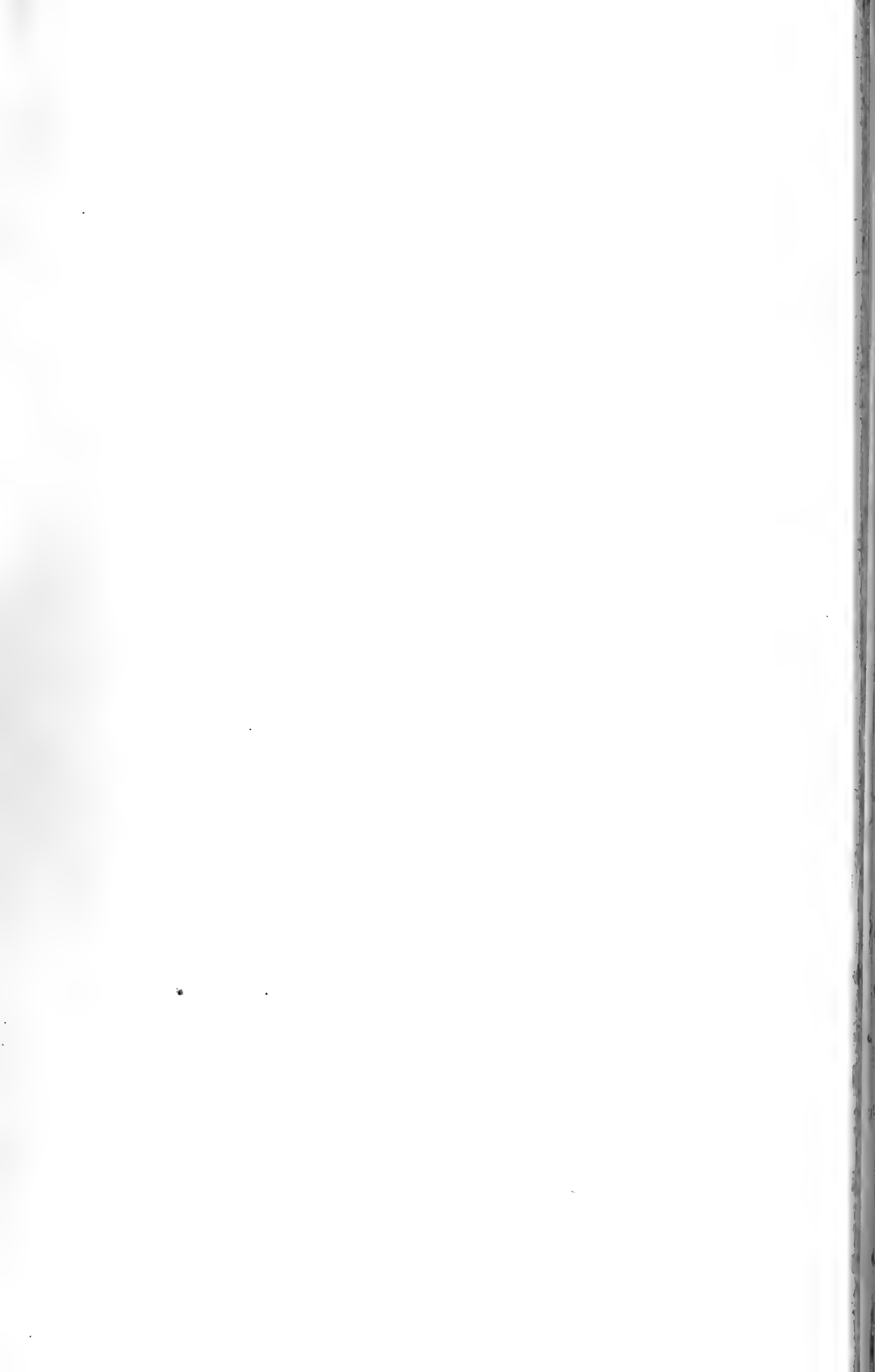
$\frac{1}{6}$

MUTE SWAN.

Cygnus olor (J. F. Umelin).

Litho. W. Greve, Berlin.







A. Thorburn.

1
6

COMMON WILD SWAN OR WHOOPER.

Cygnus musicus, Bechst.

Litho. W. Greve, Berlin.

COMMON WILD SWAN OR WHOOPER.

CYGNUS MUSICUS, *Bechst.*

Cygnus musicus, *Bechst.* Gemeinn. Naturg. Vög. Deutschl. iii. p. 830 (1809); *Macg.* iv. p. 659; *Yarr.* ed. 4, iv. p. 308; *Dresser*, vi. p. 433.

Anas cygnus, *Linn.* S. N. i. p. 194.

Cygnus xanthorhinus, *Naum.* xi. p. 478.

Cygnus ferus, *Hewitson*, ii. p. 393.

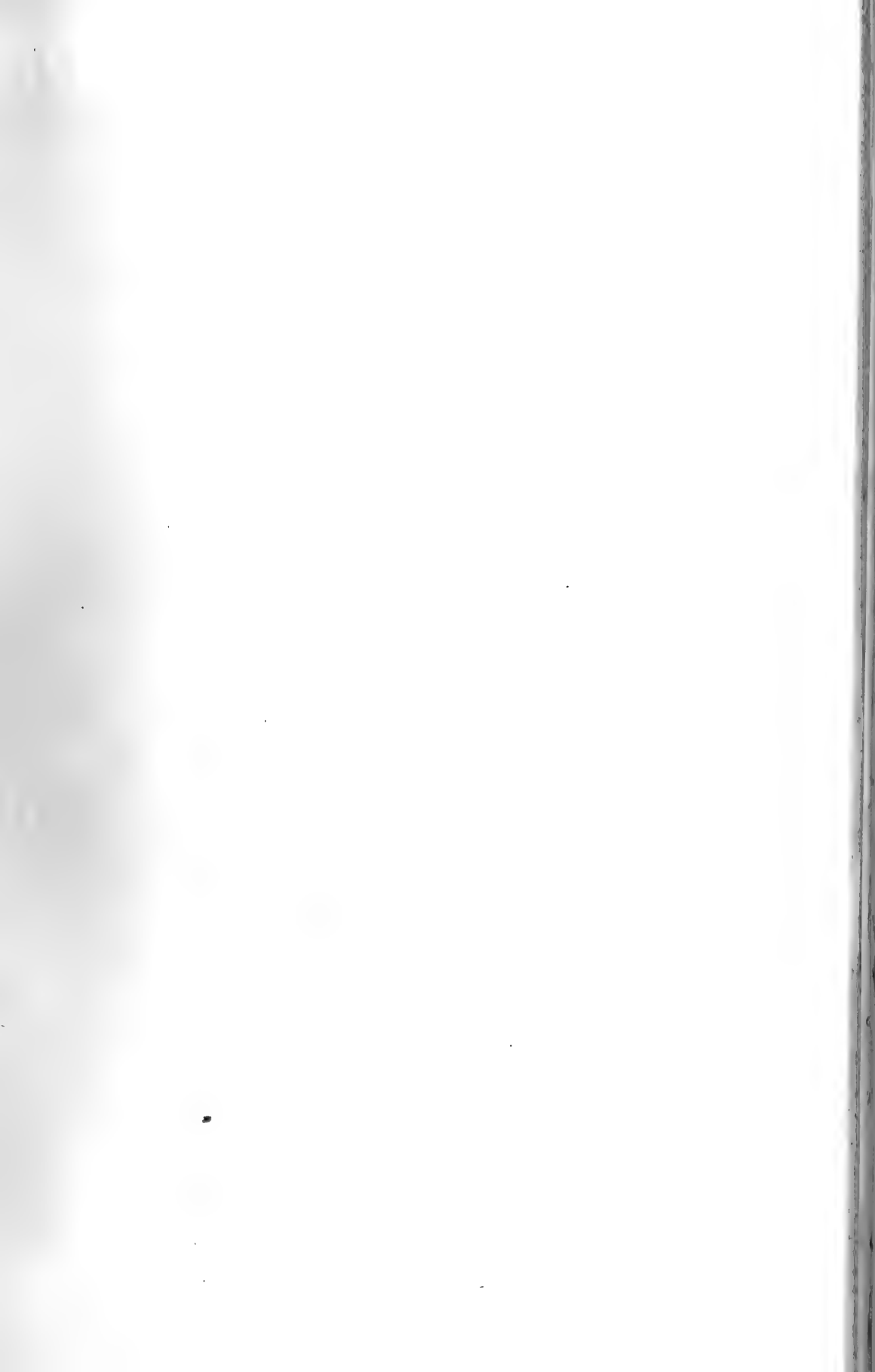
Cygne sauvage, French; *Sing-Schwan*, German; *Cisne*, Spanish.

This is one of the not uncommon British birds with whom I can hardly claim a personal acquaintance in a wild state, so that I am unable to add from that source any details worthy of record to the mass of information given by our standard authorities. We are assured that towards the close of the last century a few pairs of Whoopers bred in Orkney, and that some were to be found there at all seasons. At present this species no longer breeds in any part of the British Isles, but it is a regular winter visitor to the coasts and islands of Scotland, and by no means very rare as an accidental migrant to the shores and estuaries of England. I refer my readers not only to the classic records given by

Colonel Hawker with regard to Swan-shooting on our southern coasts, but also to a work that I consider as one of the most delightful ever written on English ornithology—'Ornithological Rambles in Sussex,' by A. E. Knox. The number of these northern travellers that visit our coasts depends of course very greatly on the weather. The winter of 1870-71 was very remarkable for the abundance of Wild Swans upon our eastern sea-shores, and the months of January and February of the present year 1893 were hardly less so. In this latter instance the valley of the Nene in Northamptonshire was visited by more Swans than I had ever previously heard of, but many of these were Bewick's, and some perfectly wild Mute Swans. Sir R. Payne-Gallwey, whose experience as a punt-gunner is widely known, states that the Whooper is far less common upon the coast of Ireland than the smaller species that bears the name of Bewick. The Whooper breeds in Iceland, Norway, Swedish Lapland, Finland, Northern Russia, and across Siberia; in winter it occasionally visits the Mediterranean coasts, and is common on the Black Sea and the Caspian in severe weather. The Whooper thrives well and has frequently bred in captivity; it is certainly less aggressive with regard to other wild-fowl than the Mute Swan. Two of these birds in my possession made several nests, but no eggs were laid therein; after keeping these Swans for some years upon our "fowl-ponds," I turned them on to the river in the hope that they would destroy some of the water-weeds by which it is now annually well-nigh blocked in the summer months. These two birds strayed to a consider-

able distance, and one of them was slaughtered by some brutal scoundrel with peculiar atrocity; the other came home and wandered every morning for several months across our lawn from the river to the wire-fence that encloses the pond upon which he and his mate had been previously kept, spent the day in vain endeavours to get at a solitary Bewick's Swan on the pond, and returned regularly to the river at night. At last, moved by compassion, we let him in to join the bird that I have just named, but the only result was a furious encounter. The Whooper, on his journeys across the lawn, solaced himself with resonant whooping cries, to which the Bewick Swan occasionally responded with a very distinct sonorous cry that I can only attempt to represent by the word "boong" rapidly repeated.







1
6

BEWICK'S SWAN
Cygnus bewicki, Yarr.

Litho. W. Greve, Berlin.

BEWICK'S SWAN.

CYGNUS BEWICKI, Yarr.

Cygnus bewickii, Yarr. Trans. Linn. Soc. xvi. p. 453 (1833);
Macg. iv. p. 669; *Hewitson*, ii. p. 396.
Cygnus melanorhinus, *Naum.* xi. p. 497.
Cynus bewicki, Yarr. ed. 4, iv. p. 315; *Dresser*, vi. p. 441.

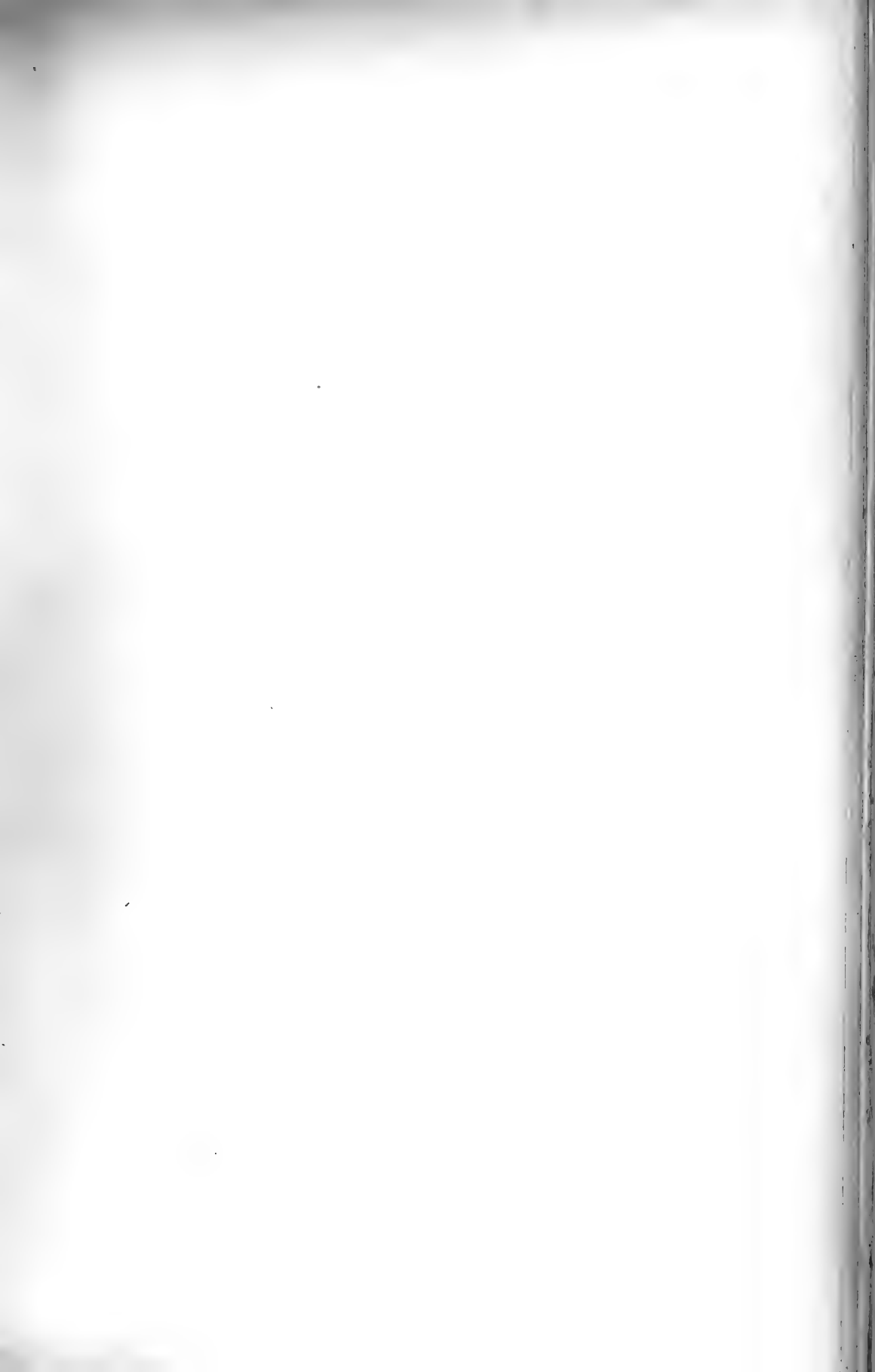
Cygne de Bewick, French; *Bewick's Schwan*, German.

I have no acquaintance with this species in a wild state, but am of opinion that it is at least as common a visitor to our shores in winter as the Whooper, not only to those of Ireland, as stated by Sir R. Payne-Gallwey, to whom I have referred in my note on the latter bird, but also on the eastern coast and inland waters of England. In support of this view, I may mention that, in my experience, the Nene Valley, near Lilford, was visited in January 1879 by a flock of sixteen of the present birds, of which four were shot by my late neighbour, Mr. George E. Hunt, and that, in a flock of more than twenty Swans of the three British species that frequented the Nene between Thrapston and Peterborough from the latter end of January till late in March 1893, at least twelve were clearly identified by

competent persons as Bewick's Swans. I have comparatively few well-authenticated reports of the occurrence of the Whooper in our district. Of course the smaller size of this species, when seen on wing in company with other Swans, although remarkable, is not by itself sufficient for positive identification, but the cry or call of the Whooper is not to be mistaken for that of Bewick's Swan, and the Mute Swan, though it hardly deserves that name, is usually silent. I will not enter into detail relating to the habits and haunts of this bird by quotation from the authorities, but merely state that it is said to average about one-third smaller in general dimensions than the Whooper, from which bird it also differs in the size and form of the yellow patch at the base of the bill.

Mr. H. Seebohm and Mr. Harvie-Brown obtained the first identified eggs of Bewick's Swan in the delta of the Petchora in June 1875.

The only two of this species that I have kept alive at Lilford were wounded birds, purchased at a considerable interval of time in Leadenhall Market, and (as I was assured) both sent up from the Essex coast. The first of these soon succumbed to the injuries that it had received, but the second, though severely crippled, lived for several years upon one of our ponds, and, although it did not molest its feathered companions, was occasionally inclined to be "nasty" with ladies and children without any provocation. I could not observe any other difference of habits in this species from those of the Whooper.





♂

RUDDY SHELD-DUCK.

Tadorna casarca (Linn.).

RUDDY SHELD-DUCK.

TADORNA CASARCA (Linn.).

Anas casarca, Linn. S. N. iii. App. p. 224 (1768).

Anas rutila, Naum. xi. p. 564.

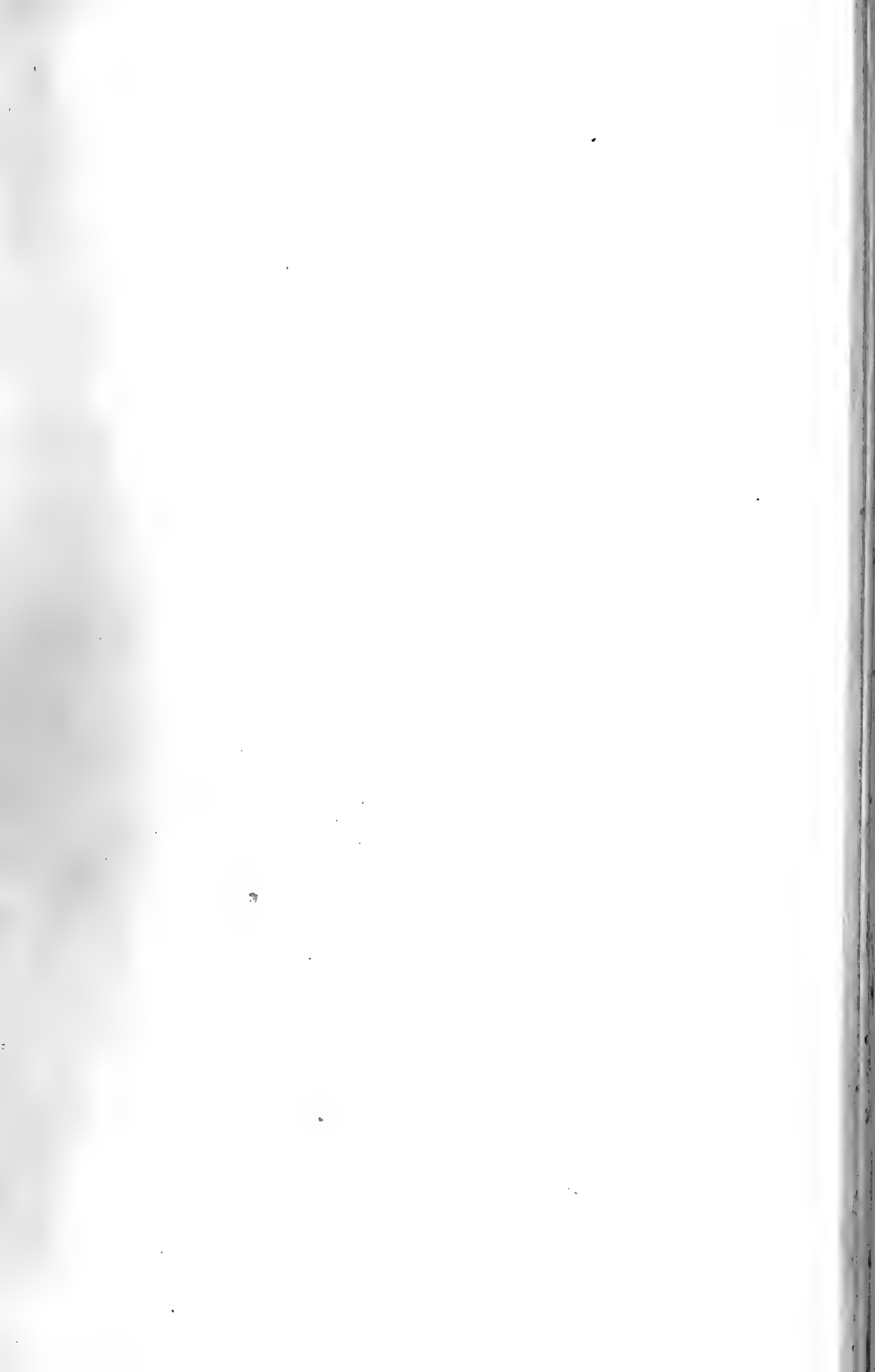
Tadorna casarca, Macg. v. p. 19; Yarr. ed. 4, iv. p. 347;
Dresser, vi. p. 461.

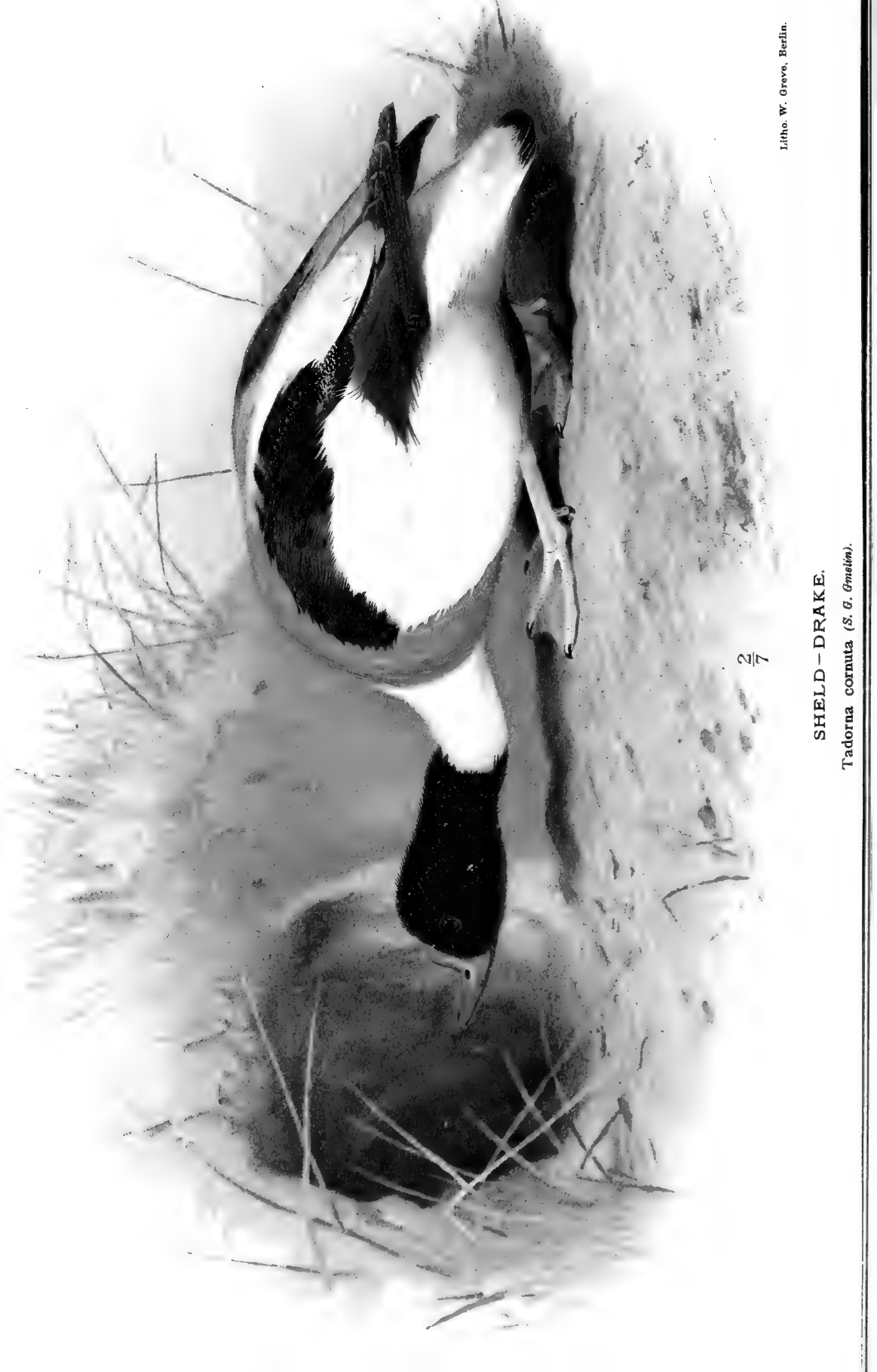
Tadorna rutila, Hewitson, ii. p. 399.

Le Tadorne, French; *Rost-Ente*, German; *Pato Tarro*,
Spanish.

This handsome bird is a very rare straggler to our country, and, although several of the records of its occurrence no doubt refer to *bonâ fide* travellers, so many of this species have of late years been reared in domestication in England, France, Belgium, and Holland, that I am inclined to look with some suspicion upon the more recent captures. We have reared several Ruddy Sheld-Ducks at Lilford, and in one instance a home-bred bird that had escaped the operation of pinioning, roamed for miles up and down the valley of the Nene for upwards of four years in perfect liberty, generally returning to his native pond after a few days' absence, owing his life in a great measure to the kindness of my neighbours, and no doubt to a considerable

degree to his own wariness when once away from his home. A cruel fate eventually caused the destruction of this bird by mistake, at the hands of an excited gunner, who had been intimately acquainted with his victim from its downy infancy. I have no acquaintance with this species in a wild state; it is said to breed in considerable numbers on the Lower Danube and Southern Russia, as well as in Northern Africa and Asia Minor, also sparsely and locally in Andalusia. I was assured that the Ruddy Sheld-Duck breeds in Cyprus, but have no proof of the truth of this assertion. This bird nests in holes in the ground or the crevices and caverns of high cliffs, also occasionally in hollow trees. In captivity I find these birds, though highly ornamental, by no means very desirable denizens of my fowl-ponds, as they are remarkably quarrelsome with other species, and, whilst nesting, as savage as Swans; besides this, their incessant hoarse cries are very monotonous and unpleasant. In India, where this species is very common, it is generally known to our countrymen as the Brahminy Duck. The flesh is almost uneatable.





2/7

SHELD - DRAKE.

Tadorna cornuta (S. G. Gmelin).

Litho. W. Greve, Berlin.

SHELD-DRAKE.

TADORNA CORNUTA (*S. G. Gmelin*).

Anas tadorna, *Linn. S. N.* i. p. 195 (1766); *Naum.* xi. p. 534.

Anas cornuta, *S. G. Gmelin*, *Reise d. Russl.* ii. p. 185, pl. 18 (1774)..

Tadorna vulpanser, *Macg.* v. p. 22; *Hewitson*, ii. p. 397.

Tadorna cornuta, *Yarr.* ed. 4, iv. p. 352; *Dresser*, vi. p. 451.

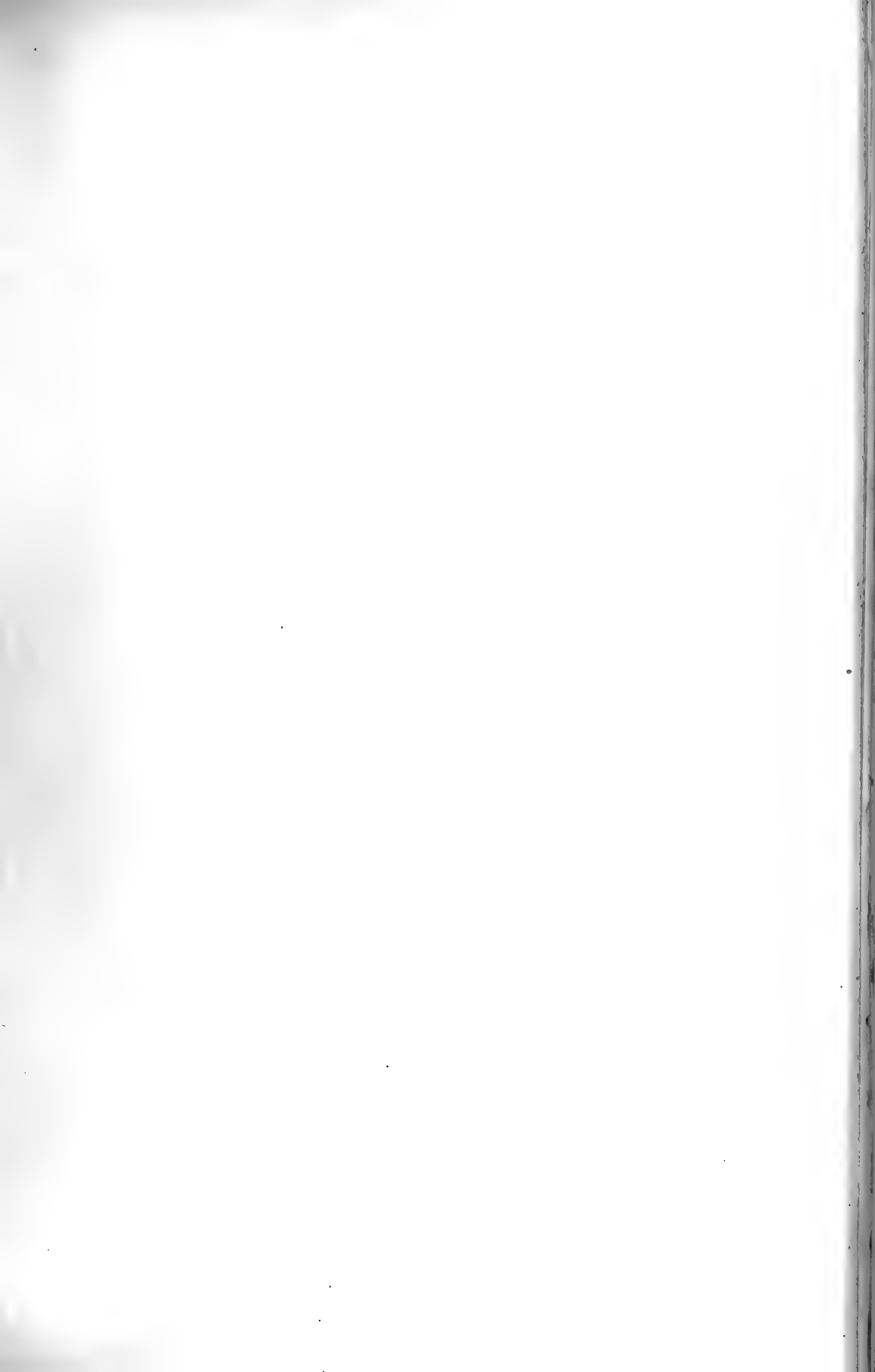
Le Tadorne, French; *Brand-Ente*, German; *Pato tarro*, Spanish.

This handsome bird breeds in rabbit-burrows and cavities in the sand on many parts of the coasts of Scotland, England, and Ireland, and bears various names in its various breeding-haunts. "Burrow-Duck" is perhaps the most common of these local appellations; but I find in the 4th edition of Yarrell that it is also known as "Bar-Gander," "Stock-Annet," and in Orkney as "Sly Goose." To these I may add "Sand-Goose" and "Pied Duck." In the winter many Sheld-Ducks may be found on or off almost all the unfrequented sandy shores of the three Kingdoms, either feeding on the flats or riding at sea in small parties in fine weather at a short distance from land. In my own experience this bird seldom comes inland to any great distance from salt water; but as many are now bred in a semi-domesticated condition, and allowed the free use of

their wings, there are few county bird-lists in which the Sheld-Drake does not appear.

The food of this species consists principally, if not entirely, of the small animals which are to be found in abundance on the sand and sea-mud ; to wit—lugworms, sand-hoppers, and mollusks of all sorts ; certain seaweeds are also said to possess attractions for our bird. In captivity these birds are easily kept upon ordinary "Duck's food," but are exceedingly fond of chopped meat, and devour great numbers of earth-worms. Although extremely ornamental, the Sheld-Drake is not a desirable bird amongst other waterfowl, as he is a bully and a tyrant, and totally worthless from a culinary point of view. We have reared several of this species at Lilford ; the young are about the prettiest of "fowl" in the pied down of infancy, and are by no means difficult to keep alive if not allowed access to water, except for drinking, during the first few months of their existence.

The only note that I have ever heard produced by my birds of this species was a short hiss, when bullying some other bird, or fighting amongst themselves ; but I have heard occasionally on the coast of N. Wales at night a somewhat Wigeon-like whistle that emanated, as I believe, from the "Sand-Geese" on wing. I have met with a few of these birds on the lower Guadalquivir, and have good reason to believe that they breed in that locality. During the comparatively severe winter of 1857-58 a good many Sheld-Ducks frequented the shores of Epirus and Acarnania, and I have met with the species sparingly in various other parts of the Mediterranean.



MALLARD OR WILD DUCK.

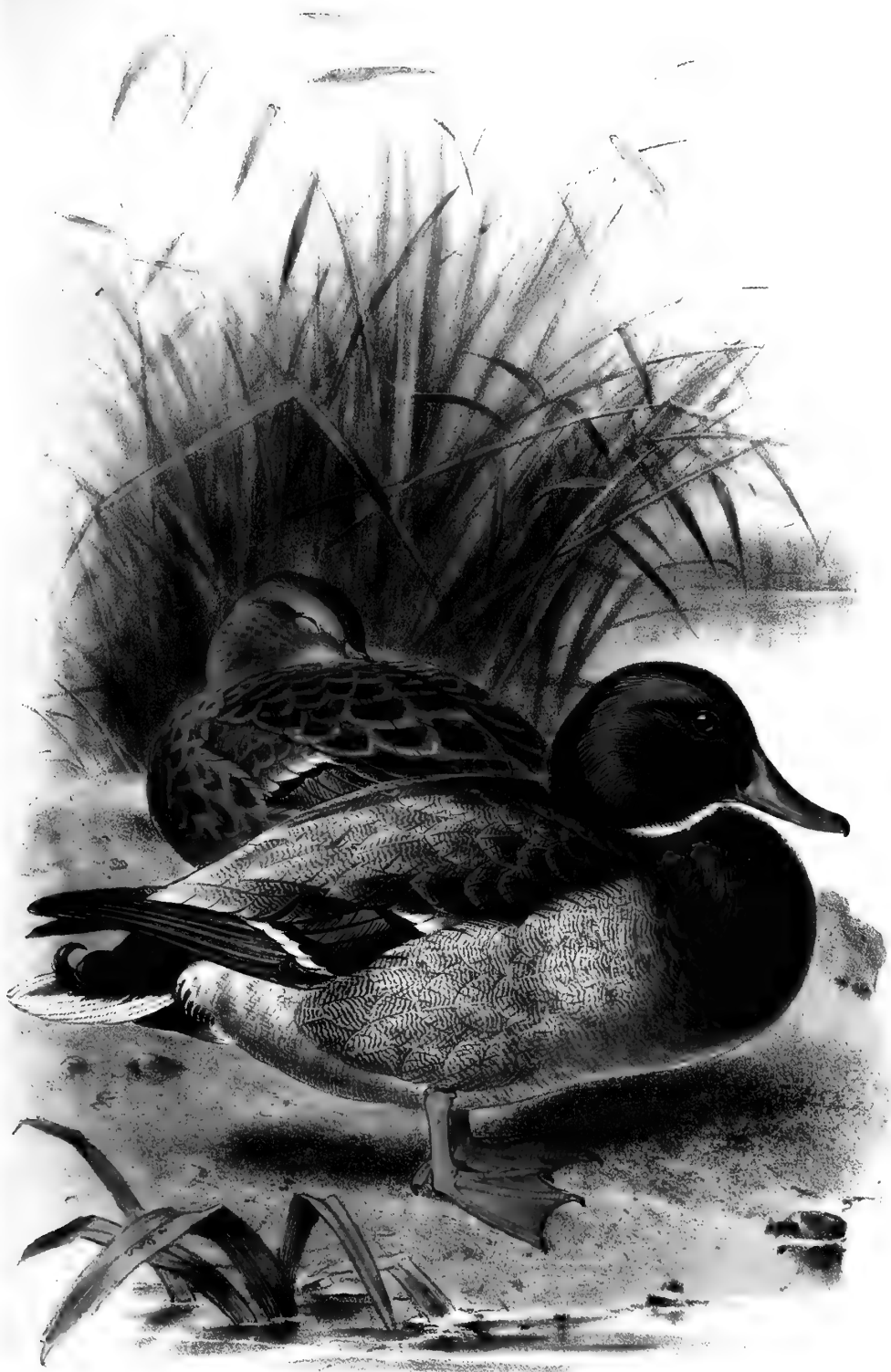
ANAS BOSCHAS, Linn.

Anas boschas, Linn. S. N. i. p. 205 (1766); Naum. xi. p. 575;
Macg. v. p. 31; *Hewitson*, ii. p. 407; *Yarr.* ed. 4, iv.
p. 358; *Dresser*, vi. p. 469.

Canard sauvage, French; *Stockente*, German; *Pato real*,
Spanish.

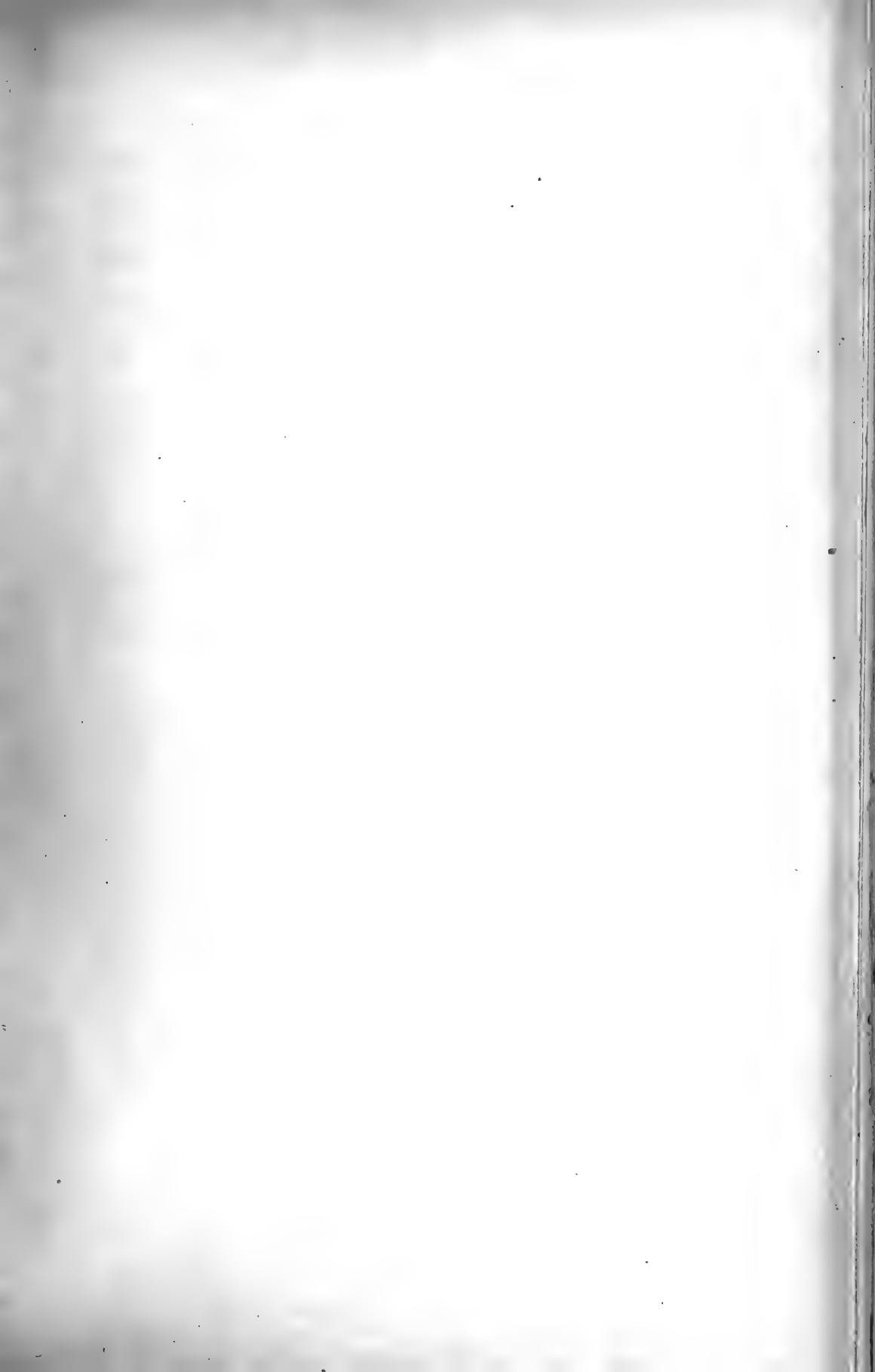
This is a species of which it would be difficult to write anything that is not already perfectly well known, so I will content myself with stating that our Common Wild Duck is found in almost all parts of Europe, Asia, N. Africa, and N. America at various seasons, and breeds in every county of England, Wales, Scotland, and Ireland.

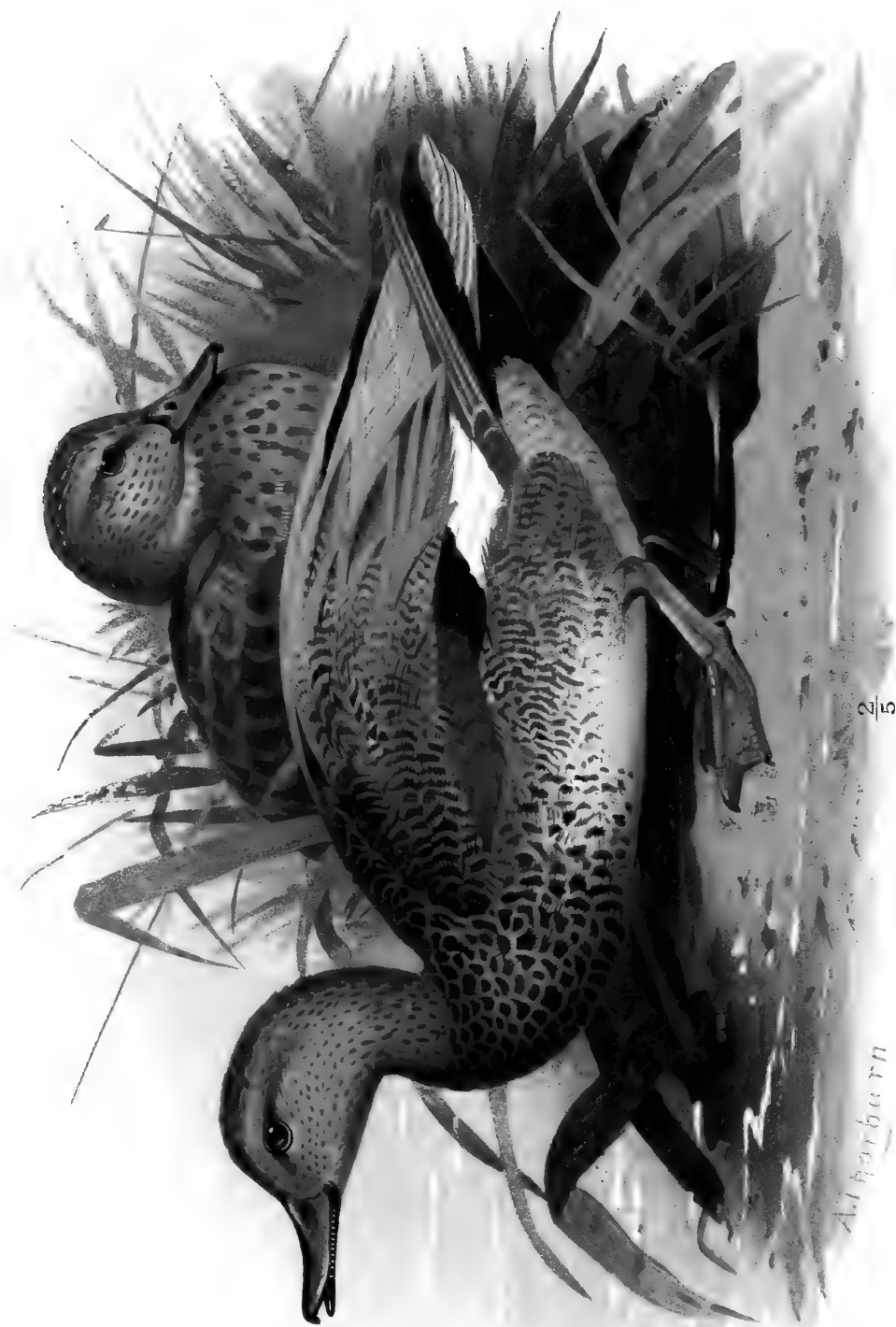
Many modern authors have dropped the “*h*” from the specific Latin designation of this species; but, admitting this alteration to be perhaps classically correct, I am quite content in this instance to err with Linnæus.



MALLARD or WILD DUCK, ♂ & ♀
Anas boschas, Linn







2/5

GADWALL.
Anas strepera, Linn.

Litho. W. Greve, Berlin.

GADWALL.

ANAS STREPERA, Linn.

Anas strepera, Linn. S. N. i. p. 200 (1766); Naum. xi. p. 659; Hewitson, ii. p. 402; Yarr. ed. 4, iv. p. 370.
Chaulelasmus streperus, Dresser, vi. p. 487.

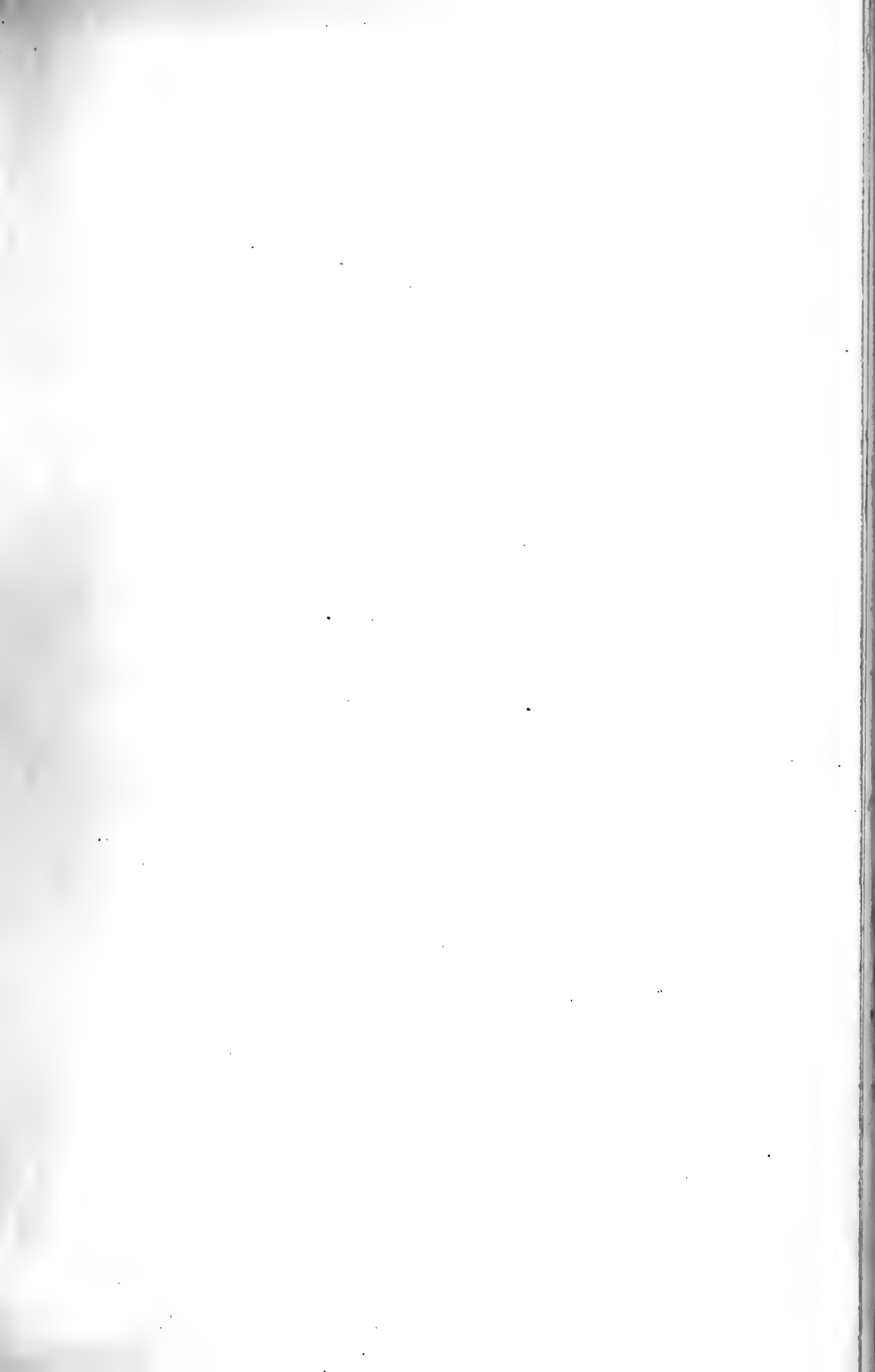
Chipeau bruyant, French; *Mittel-Ente*, *Schnarr-Ente*, German; *Pato castellano*, *Frisa*, *Ascle*, Spanish.

Yarrell, writing of this species in the 2nd edition of his 'British Birds,' published in 1845, states that it is rare, occurring sometimes in winter, but more frequently in the spring rather than at any other season of the year, and then only in very limited numbers. He goes on to say that Montagu, during the many years that he devoted to collecting British Birds, was never able to obtain a recent specimen: now, however, the Gadwall may be considered as a common bird in certain parts of our country, especially in West Norfolk, where, as Mr. Howard Saunders tells us, the descendants of a pair of pinioned birds, introduced some thirty-five years ago, have so far multiplied and induced perfectly wild Gadwalls to remain and breed, that at the present time the numbers on one property alone are roughly computed at fifteen hundred. I

may mention that Mr. Saunders's statement has been personally confirmed to me by Lord Walsingham, whose meres in the neighbourhood of Merton are certainly now the headquarters of this bird in England. In other parts of our islands the species is not abundant, more so in certain islands of the Hebridean group and in Ireland than elsewhere.

In general habits this species much resembles the common Wild Duck, but is not so wary as that bird, and from its predilection for thick covert is comparatively easy of approach. I have found it in all suitable localities of the Mediterranean countries that I have visited, and have received nests and eggs from Andalusia. In my experience the Gadwall seldom visits the salt water, preferring small pools and lakes surrounded with reeds and other marsh vegetation.

The note of the male is a curious rattling croak, a sort of mixture of the alarm cry of the Mallard and the sound uttered by the male Garganey; but on the whole the present is a quiet bird. I seldom observed it in large numbers together. A good many Gadwalls are sent alive from the Dutch decoys to the London market in the early part of the year: these birds, when pinioned, thrive admirably well in semi-captivity and become exceedingly tame. The flesh of the Gadwall is, in my opinion, most excellent.



SHOVELLER.

ANAS CLYPEATA, Linn.

Anas clypeata, Linn. S. N. i. p. 200 (1766); Naum. xi. p. 747;
Hewitson, ii. p. 400.

Spatula clypeata, Yarr. ed. 4, iv. p. 375; Dresser, vi. p. 497.

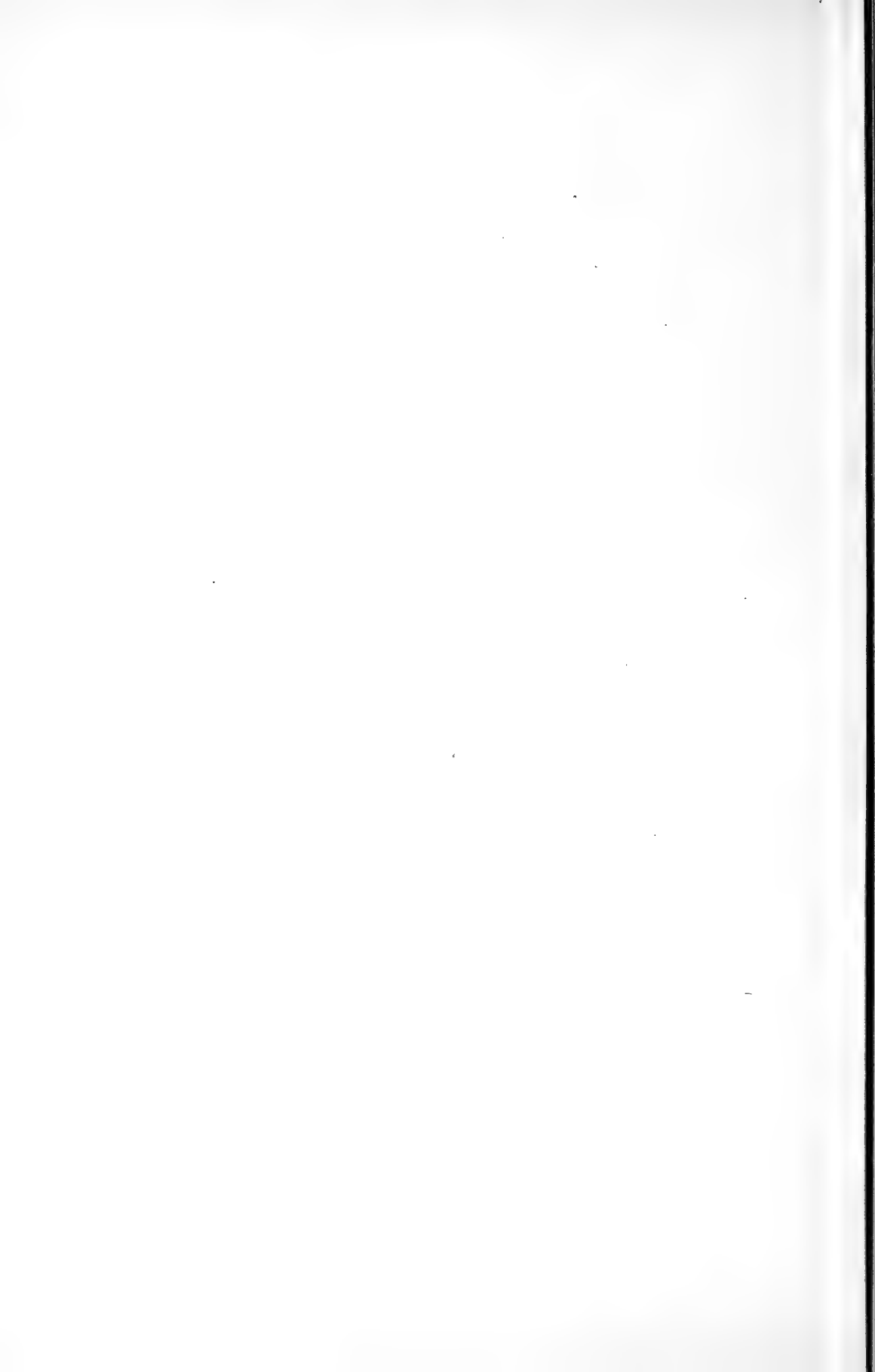
Souchet, French; *Löffel-Ente*, German; *Pato sardinero*,
Cuchareta, Spanish.

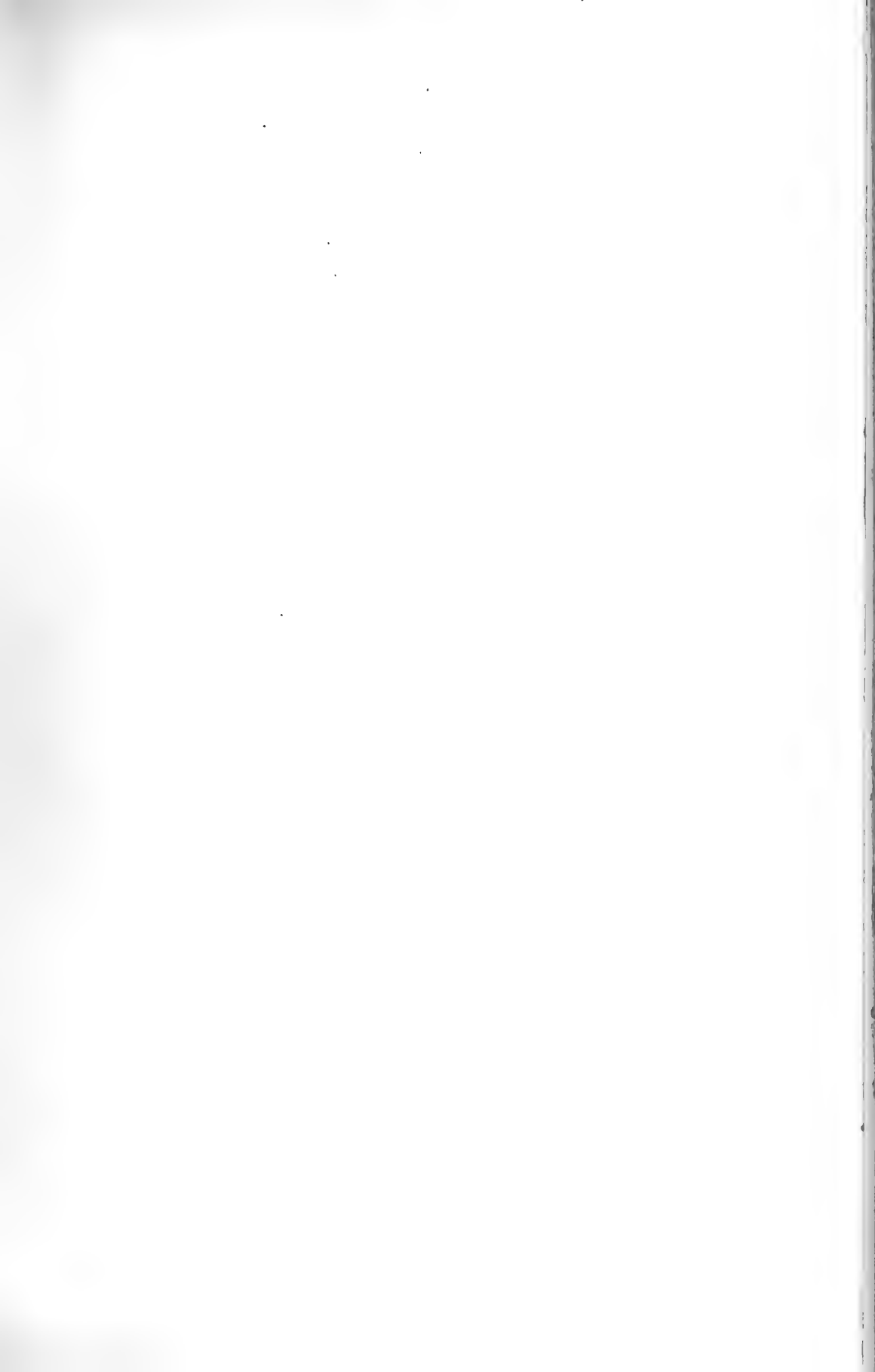
This bird, which is best known as an autumnal visitor to this country, has now been discovered to breed annually in many counties of England, as well as in Scotland and Ireland; and I am glad to believe, on excellent authority, that its numbers as a breeding species are gradually on the increase in the few remaining districts suitable to its habits. In the matters of flight, food, and general customs the Shoveller much resembles the Mallard, but the pairing-note of the male is very distinguishable from that of the commoner bird. Opinion is much divided as to the merits of this bird from a culinary point of view—in my opinion it is most excellent food.



SHOVELLER.
Anas clypeata, *Lin.*

Litho. W. Grese, Berlin





PINTAIL.

ANAS ACUTA, Linn.

Anas acuta, Linn. S. N. i. p. 202 (1766); Naum. xi. p. 638;
Hewitson, ii. p. 403.

Querquedula acuta, Macg. v. p. 65.

Dafila acuta, Yarr. ed. 4, iv. p. 380; Dresser, vi. p. 531.

Pilet, French; *Spiess-Ente*, *Spitz-Ente*, German; *Pato rabudo*, *Pato careto*, Spanish.

This handsome Duck is a regular, but not a very abundant, autumnal visitor to our islands; its numbers, however, vary considerably in various years, and it appears to be more common now in many parts of England than was formerly the case. I have seen more Pintails in a certain locality in the centre of Ireland than anywhere else in British dominions, and have been assured by the owner that a few of these birds breed regularly in the district to which I refer. I am not personally acquainted with any other instance of their nesting in the United Kingdom.

The principal breeding-haunts of this species are in the far north of Europe and America, and as it is exceedingly abundant during the winter in many parts of the Mediterranean coasts, I imagine that the chief lines of its migration must lie to the eastward of our country.

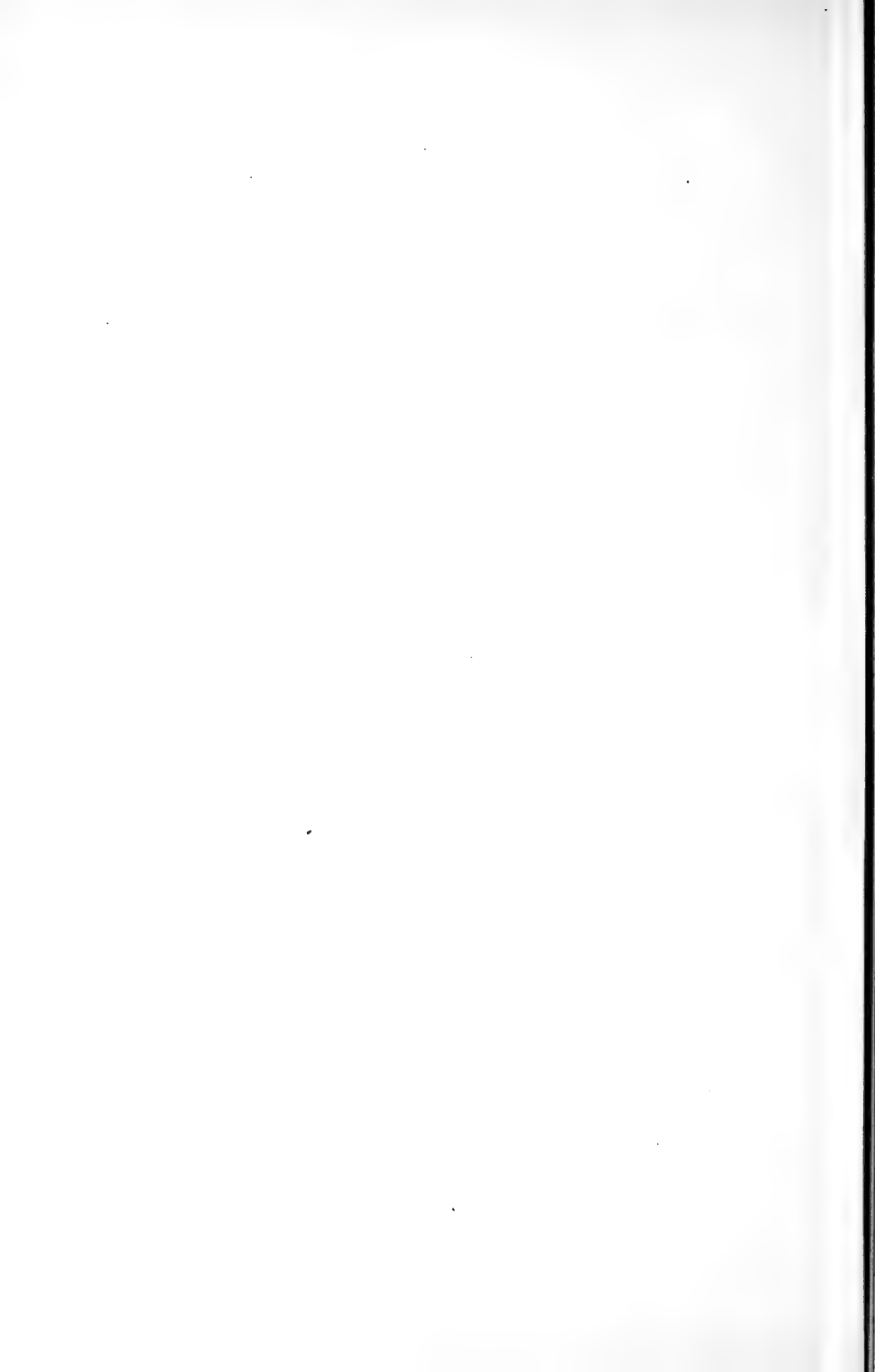


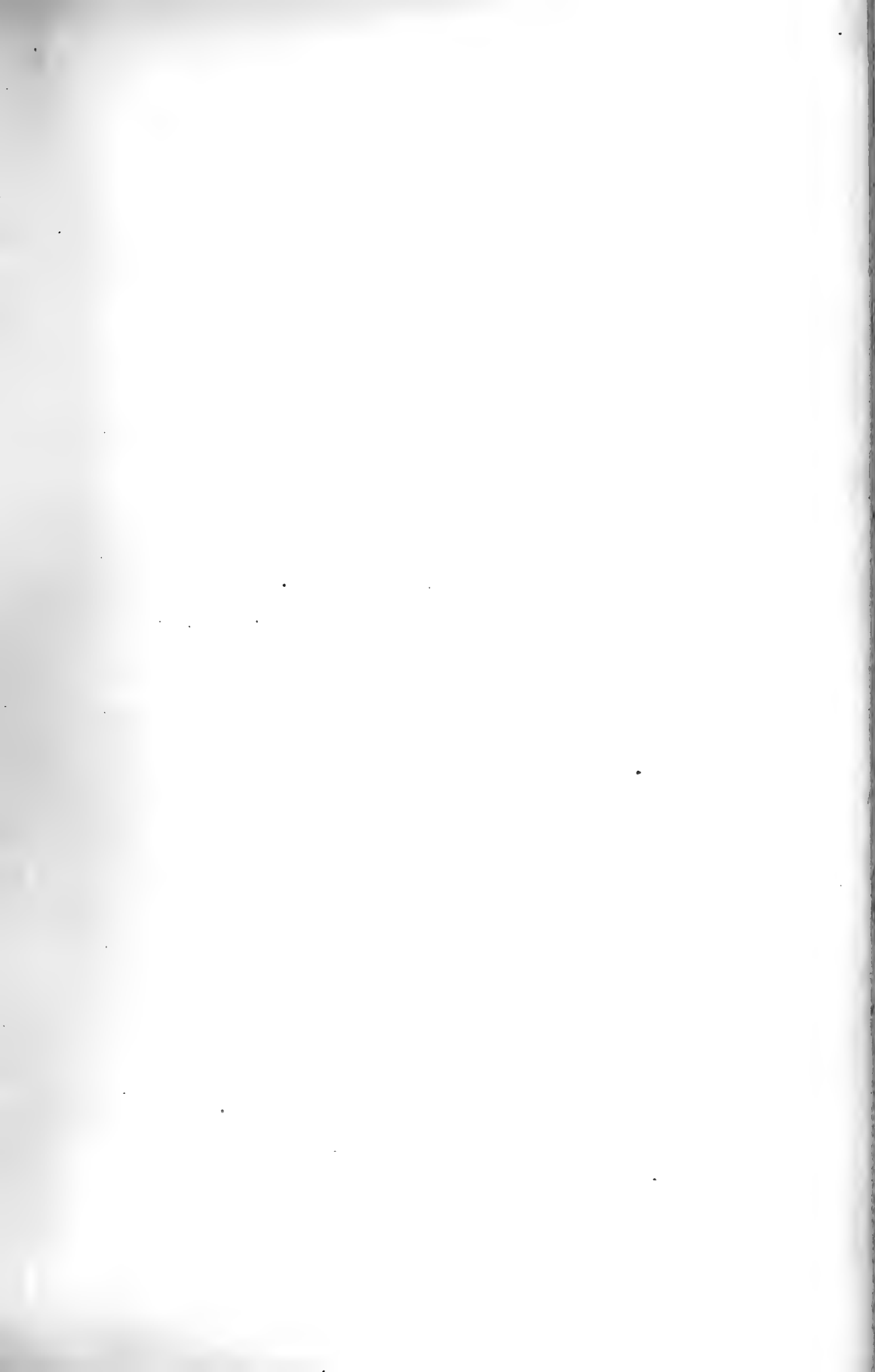
1
3

PINTAIL

Anas acuta, Linn.

Litho. W. Greve. Berlin.





TEAL.

ANAS CRECCA, Linn.

Anas crecca, Linn. S. N. i. p. 204 (1766); Naum. xi. p. 701;
Hewitson, ii. p. 410.
Querquedula crecca, Macg. v. p. 48; Yarr. ed. 4, iv. p. 387;
Dresser, vi. p. 507.

Sarcelle d'hiver, French; *Krückente*, German; *Cerceta*,
Zarceta, Spanish.

Many of these beautiful birds are annually bred in the three kingdoms and the principality; but in the greater part of England the Teal may fairly be considered as an autumnal visitor, occasionally in very great numbers, to our rivers and marshes.

The Teal occasionally nests at a considerable distance from water, and I feel sure, in such instances, carries its young to the splashy spots in which the species delights. Of all flying fowl of my acquaintance I consider the Teal about the best for the table.



TEAL.

Anas crecca. *Linn.*





AMERICAN GREEN-WINGED TEAL.

ANAS CAROLINENSIS, J. F. Gmelin.

Anas carolinensis, J. F. Gmelin, S. N. i. p. 533.

Nettion carolinensis, Baird, Brewer, & Ridgway, Water-Birds of N. Am. ii. p. 2.

An adult male of this Teal was shot on 23rd November, 1879, on an arm of the Kingsbridge estuary, South Devon, and its capture was recorded by the owner, Mr. H. Nicholls, in the 'Zoologist' (1880, p. 70). Two earlier instances of the occurrence of other specimens have been recorded. Mr. A. Fellowes, in the same volume of the 'Zoologist,' stated that he possessed an example shot by his father before 1840 at Hurstbourne Park, Hants; and Mr. J. Evans (Zool. 1852, p. 3472) has recorded that an adult male, now in Lord Hill's collection, had been shot near Scarborough, in November 1851.

The Green-winged Teal is a common bird in North America, breeding chiefly in countries lying to the north of the United States. The winter is passed further south; a few birds at that season reach Mexico and even Honduras.

[O. S.]

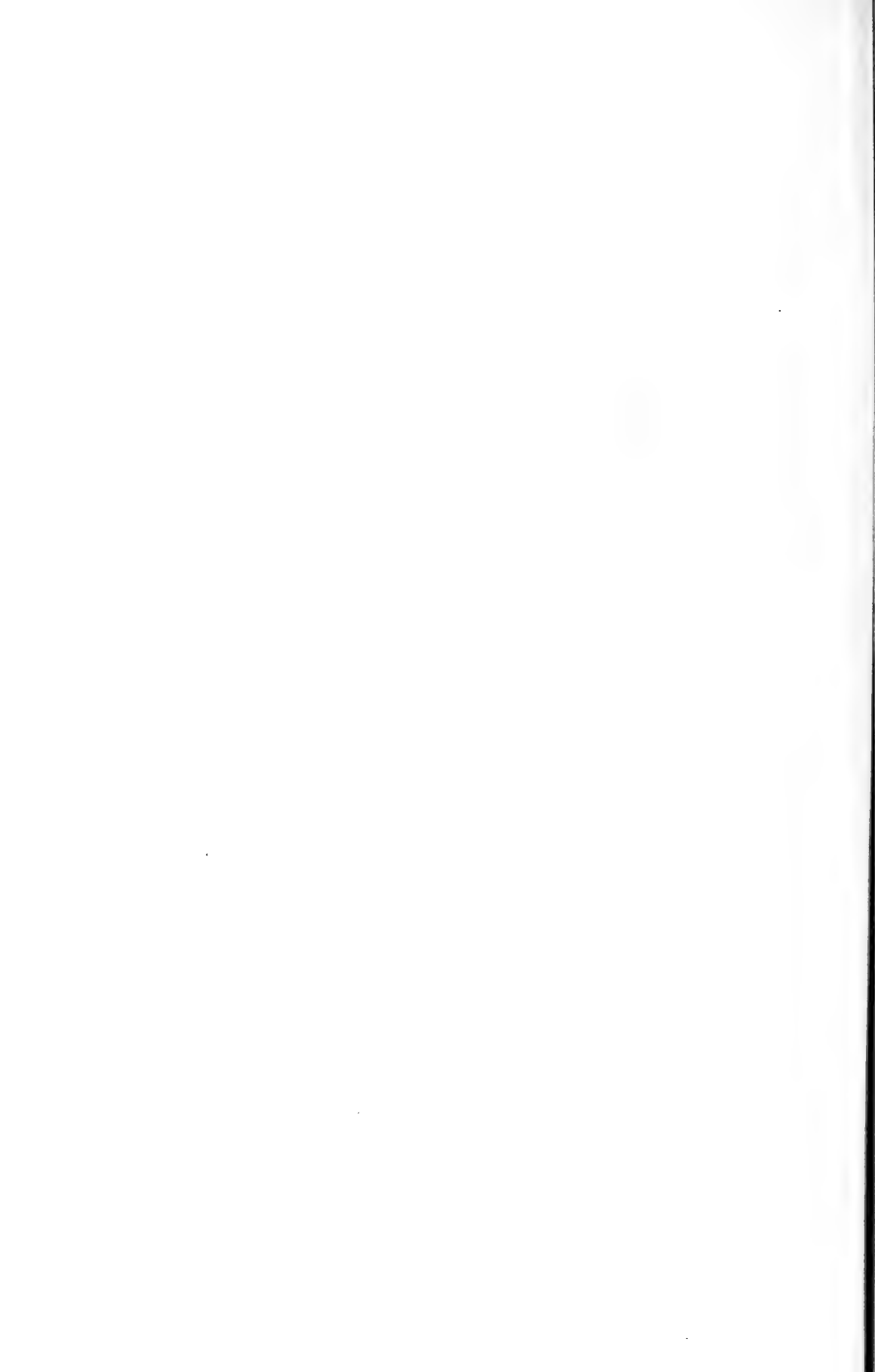


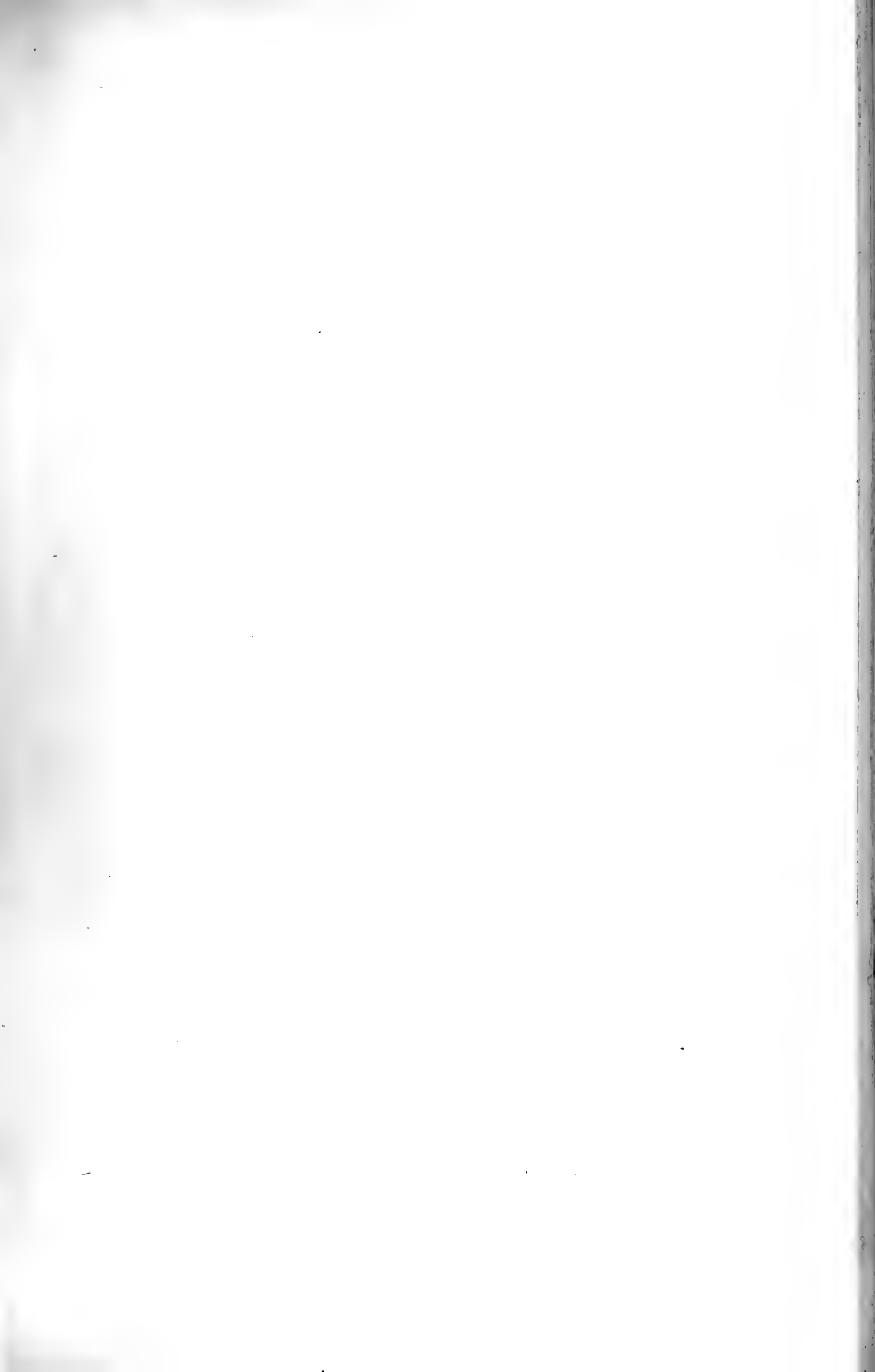
A. THORNTON

2
15

AMERICAN GREEN - WINGED TEAL.
Anas carolinensis, J. F. Gmelin

Litho. W. Greve, Berlin.





GARGANEY OR SUMMER TEAL.

ANAS CIRCIA, Linn.

Anas circia, Linn. S. N. i. p. 204 (1766).

*Anas querquedula, Linn. S. N. i. p. 203; Naum. xi. p. 677;
Hewitson, ii. p. 409.*

*Querquedula circia, Macg. v. p. 55; Yarr. ed. 4, iv. p. 393;
Dresser, vi. p. 513.*

*Sarcelle d'été, French; Knäck-Ente, German; Cerceta,
Carrañaca, Spanish.*

The Garganey visits England in small numbers in the early spring, and remains to breed in certain favourable localities in Norfolk and elsewhere, but cannot be considered abundant in any part of the country. I never met with this species in any part of Europe during the winter months, but it is exceedingly common on the vernal migration on the eastern shores of the Adriatic and in Sicily. In Andalusia it is not very common, but well-known, and I have received a nest and eggs with one of the parent birds from the marisma of the Guadalquivir.

The call-note of the Garganey is a harsh guttural rattle, which, if once heard, cannot be mistaken, and distantly resembles the croak of the Ptarmigan. In my opinion the flesh of this bird is remarkably nasty, but I never had an opportunity of tasting it in the winter.

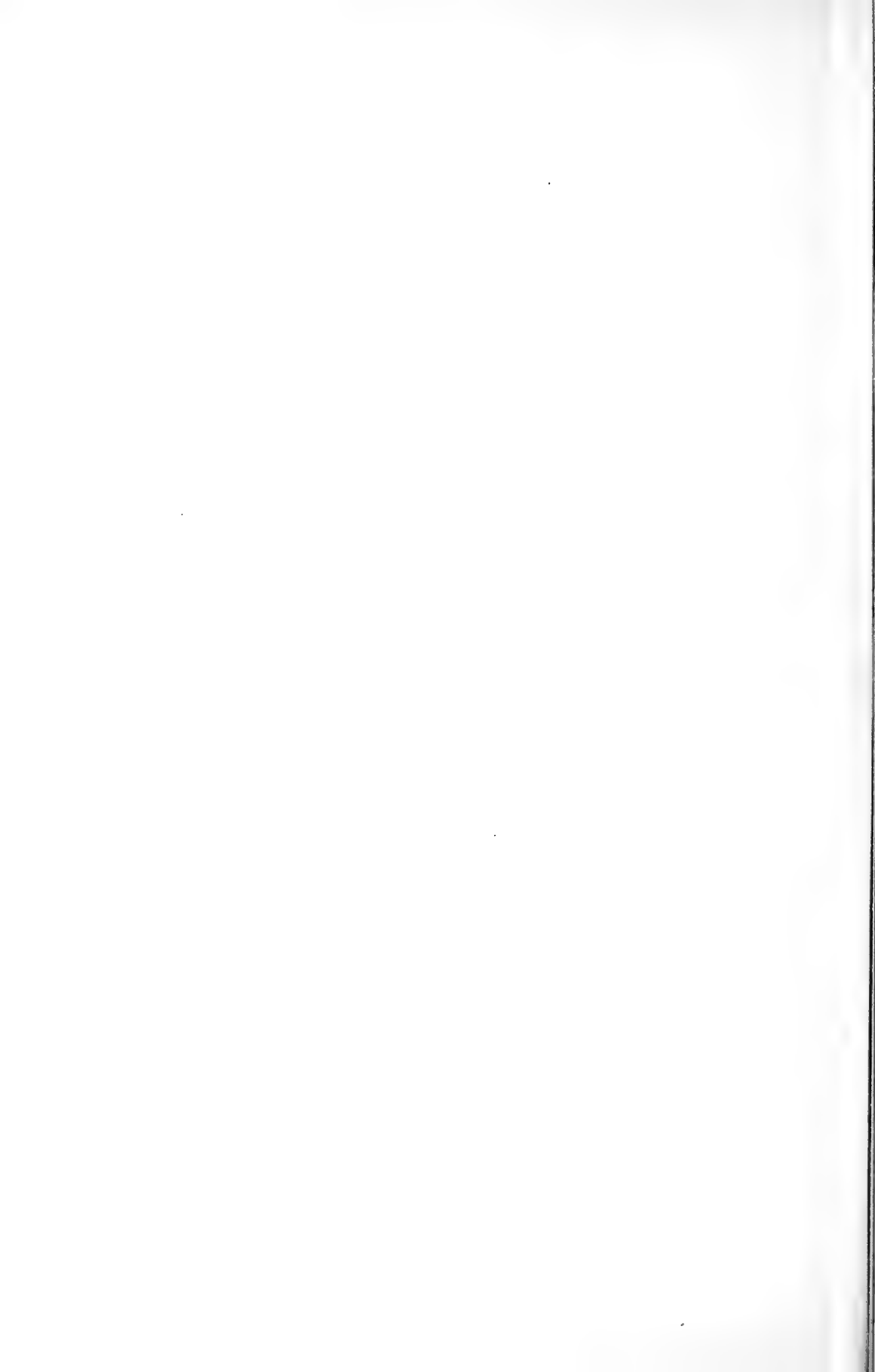


cal/c

Litho. W. Greve, Berlin.

GARGANEY, OR SUMMER TEAL

Anas circia, Linn.





AMERICAN BLUE-WINGED TEAL.

ANAS DISCORS, Linn.

Anas discors, Linn. S. N. i. p. 205.

Querquedula discors, Baird, Brewer, & Ridgway, Water-Birds of N. Am. i. p. 531.

One occurrence. Mr. W. G. Gibson, writing from Dumfries in 1858, says ('Naturalist,' viii. p. 168), "a specimen of the Blue-winged Teal was shot here a few weeks ago." This bird, a male, passed into the possession of Sir William Jardine, and with the rest of his collection of British birds was acquired by the Edinburgh Museum, where it now is.

This Teal is common in North America, chiefly to the eastward of the Rocky Mountains. The winter is passed in Mexico, Central America, and the West Indian Islands, some birds at that season reaching as far south as Peru. [O. S.]

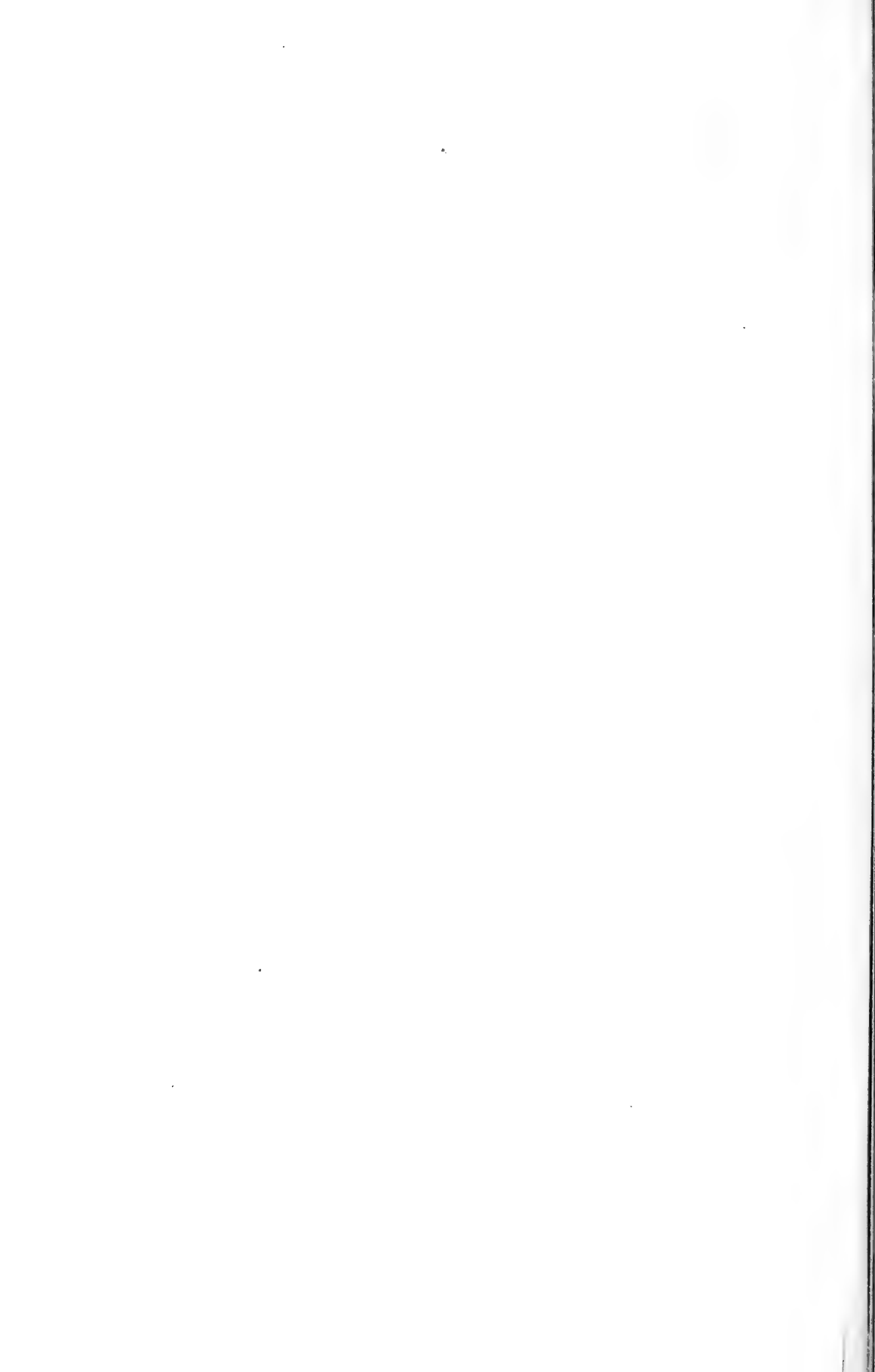


2
—
5

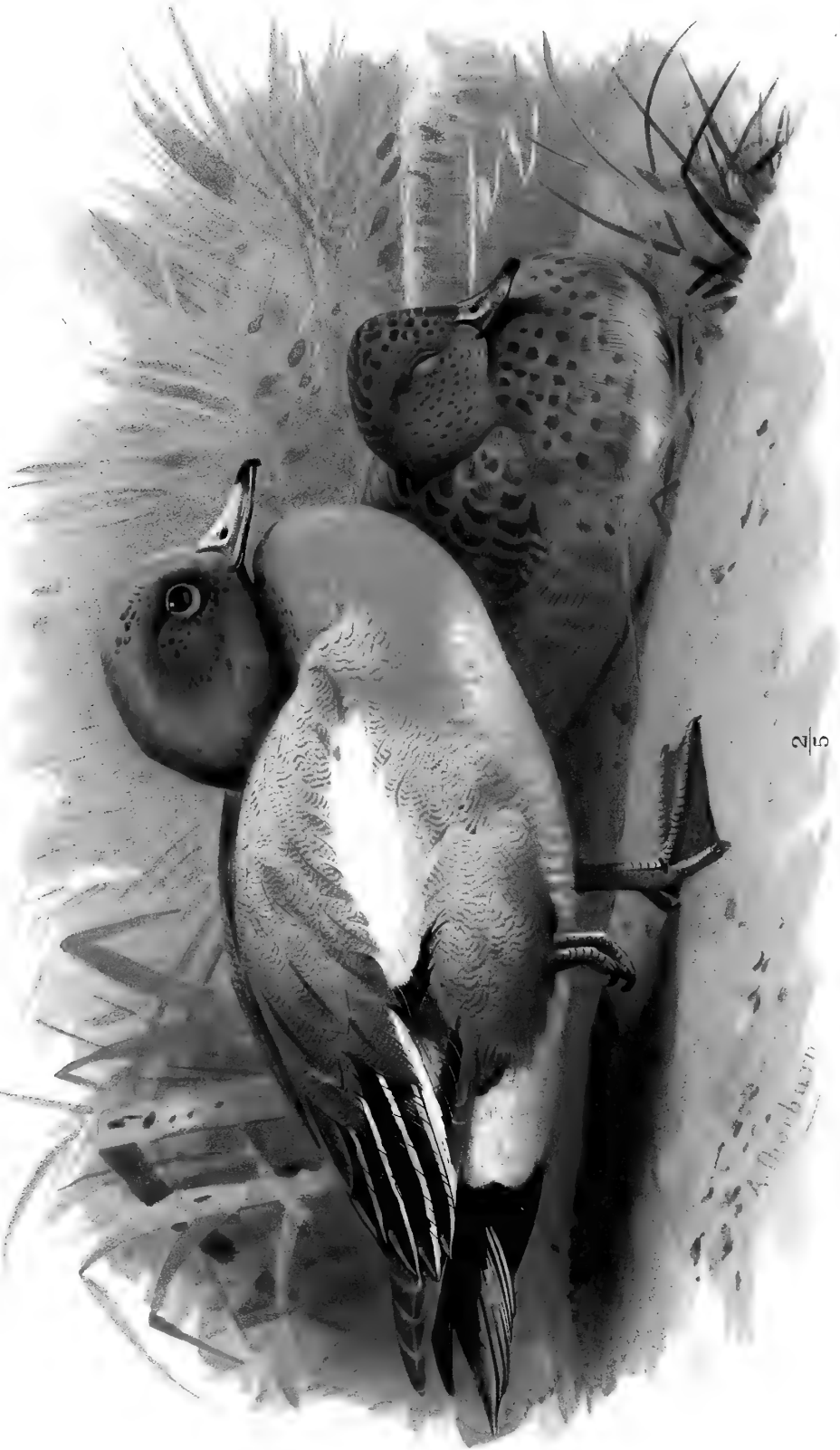
AMERICAN BLUE-WINGED TEAL.

Anas discors, Linn.

Litho. W. Greve, Berlin.







2/3

WIGEON.

Mareca penelope (Linn.).

Litho. W. Greve, Berlin.

WIGEON.

MARECA PENELOPE (Linn.).

Anas penelope, Linn. S. N. i. p. 202 (1766); Naum. xi. p. 724; Hewitson, ii. p. 412.

Mareca penelope, Macg. v. p. 83; Yarr. ed. 4, iv. p. 397; Dresser, vi. p. 541.

Canard siffleur, French; *Pfeif-Ente*, German; *Silbon*, *Pato franciscano*, Spanish.

To most parts of Great Britain this well-known species is an autumnal visitor, but it breeds pretty abundantly in the north of Scotland and in smaller numbers in certain parts of Ireland. The Wigeon differs from the true Ducks and the Pochards not only in its habit of feeding by day as well as by night, but also by grazing on meadow-grass, after the manner of the Geese, and by its comparatively light and active carriage on land.

It flocks in enormous numbers on our tidal estuaries during the winter, and is the principal object of pursuit of most of the coast gunners, its habits of swimming, flying, and feeding on the mud in very close order often afford excellent opportunities for "heavy shots."

The note of the male bird is a shrill double whistle,

once heard never to be forgotten. I have met with Wigeon in considerable numbers during the winter and early spring in Andalucia and all parts of the Mediterranean coast that I have visited; and I find it stated that in the Old World it is to be met with at various seasons from the Arctic Circle as far south as Abyssinia. In captivity the Wigeon thrives remarkably well and becomes very tame, but has not very often been known to nest in a pinioned condition.



AMERICAN WIGEON.

MARECA AMERICANA (*J. F. Gmelin*).

Anas americana, *J. F. Gmelin*, S. N. i. p. 526.

Mareca americana, *Macg.* v. p. 90; *Yarr.* ed. 4, iv. p. 403.

The only recorded occurrences of this American Duck now considered trustworthy are one by Blyth of a male found with a number of Common Wigeon in Leadenhall Market in the winter of 1837-38, and now in the collection of Mr. J. H. Gurney, of Keswick Hall, and one, a female, found by Sir Ralph Payne-Gallwey with a number of Common Wigeon in a game-dealer's shop in Leeds, in February 1895. [See P. Z. S. 1895, p. 273.]

The home of this species is North America, where it is common, breeding as far north as the shores of the Arctic Ocean, its winter migration extending to Guatemala. [O. S.]



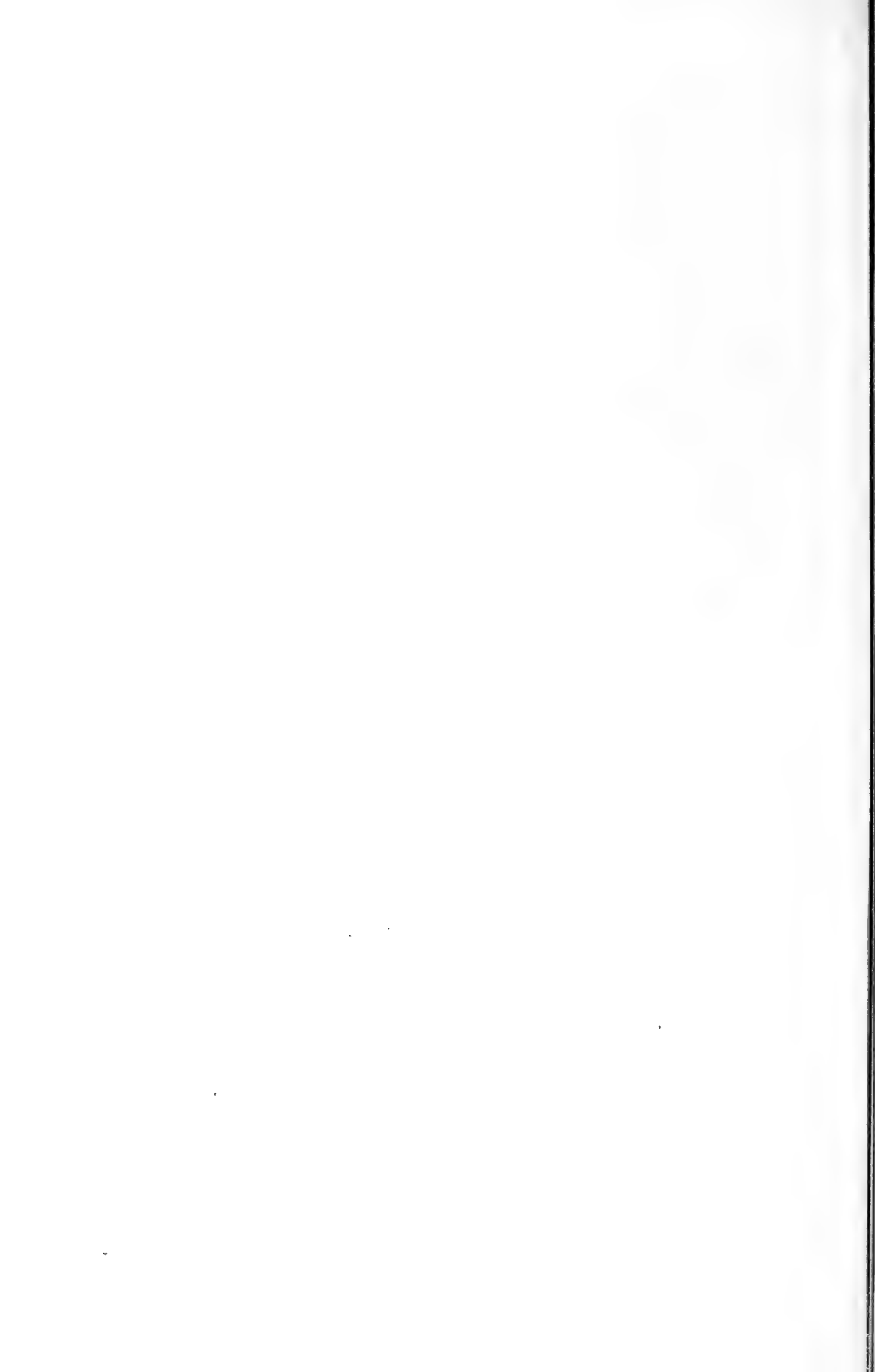
A. Thorburn

1/3

AMERICAN WIGEON.

Mareca americana (J. F. Gmelin).

Litho. W. Greve, Berlin.





RED-CRESTED POCHARD.

FULIGULA RUFINA (Pall.).

Anas rufina, Pallas, Reise, ii., App. p. 713, no. 28 (1773);

Naum. xii. p. 7.

Aythya rufina, Macg. v. p. 109.

Fuligula rufina, Yarr. ed. 4, iv. p. 407; Dresser, vi. p. 559.

Canard siffleur huppé, French; *Kolben-Ente*, German;

Sivert (Valencia), Spanish; *Bech vermell*, Catalan.

A very rare visitor to our islands, which lie far to the north of its habitual range. I have met with this fine species in various parts of the Mediterranean, notably in great numbers in the island of Sardinia, and also in the marshes of Eastern Sicily, where it breeds. I noticed more than once that a flock of these birds, on being disturbed, even long before the commencement of the pairing-season, would generally separate into pairs and make off in all directions, instead of circling around in undivided company, as is the usual habit of this gregarious family. This bird loves deep quiet waters, and is a very fine diver. The usual winter cry resembles that of most of the better-known *Fuligulae*, a rattling croak, but the pairing-note of the male is a low whistle that I have frequently heard from pinioned birds on the ponds at Lilford.

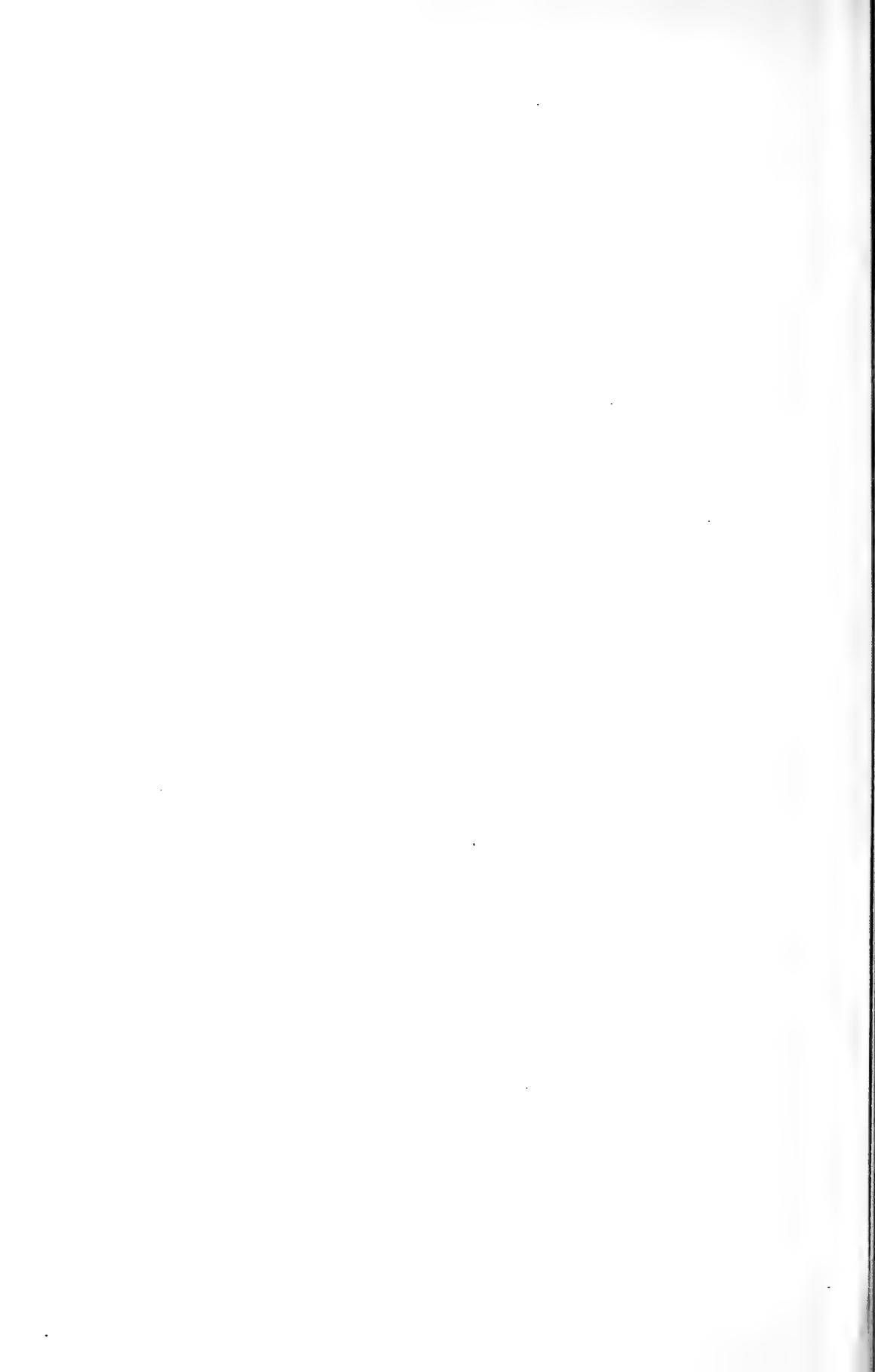


A. Thorburn

RED-CRESTED POCHARD.

Fuligula rufina (Pallas).

Larho, W. Brock, Berlin







1
3

POCHARD

Fuligula ferina (Linn.)

Litho. W. Greve, Berlin.

POCHARD.

FULIGULA FERINA (Linn.).

Anas ferina, Linn. S. N. i. p. 203 (1766) ; Naum. xii. p. 21.

Aythya ferina, Macg. v. p. 103.

Fuligula ferina, Hewitson, ii. p. 423 ; Yarr. ed. 4, iv. p. 413 ;
Dresser, vi. p. 551.

Le Milouin, French ; *Tafel-Ente*, *Brand-Ente*, German ;
Cabazon, Spanish.

Under the names of Dunbird and Poker this bird is well known in most parts of the British Islands as a common autumnal visitor to our coasts, lakes, and rivers ; but it is now a well-proved fact that a considerable number of Pochards annually breed in various localities in the three kingdoms, and with the protection now afforded by law during the breeding-season it is probable that the species will rapidly increase and multiply.

The Pochard is a very powerful diver, and in the winter months obtains its food chiefly from the bottom of the water. In my own experience I have never seen any considerable number of Pochards far away from salt-water ; but in small parties or singly they may be

met with during the winter months occasionally, almost wherever there is water enough for them to dive.

In captivity this bird thrives admirably, and soon becomes perfectly tame; but although several broods have been hatched off by pinioned birds on our ponds at Lilford, we have very seldom succeeded in rearing any of them to maturity, either by hand-feeding or leaving them to the care of their parents.





$\frac{1}{3}$

WHITE-EYED POCHARD.

Fuligula nyroca (Güldenst.).

Litho. W. Greve, Berlin

WHITE-EYED POCHARD.

FULIGULA NYROCA (Güld.).

Anas nyroca, *Güldenstädt*, Nov. Com. Petrop. xiv. p. 403
(1769); *Naum.* xii. p. 41.

Fuligula nyroca, *Maccg.* v. p. 113; *Yarr.* ed. 4, iv. p. 418.

Fuligula leucophthalmos, *Hewitson*, ii. p. 425.

Nyroca ferruginea, *Dresser*, vi. p. 581.

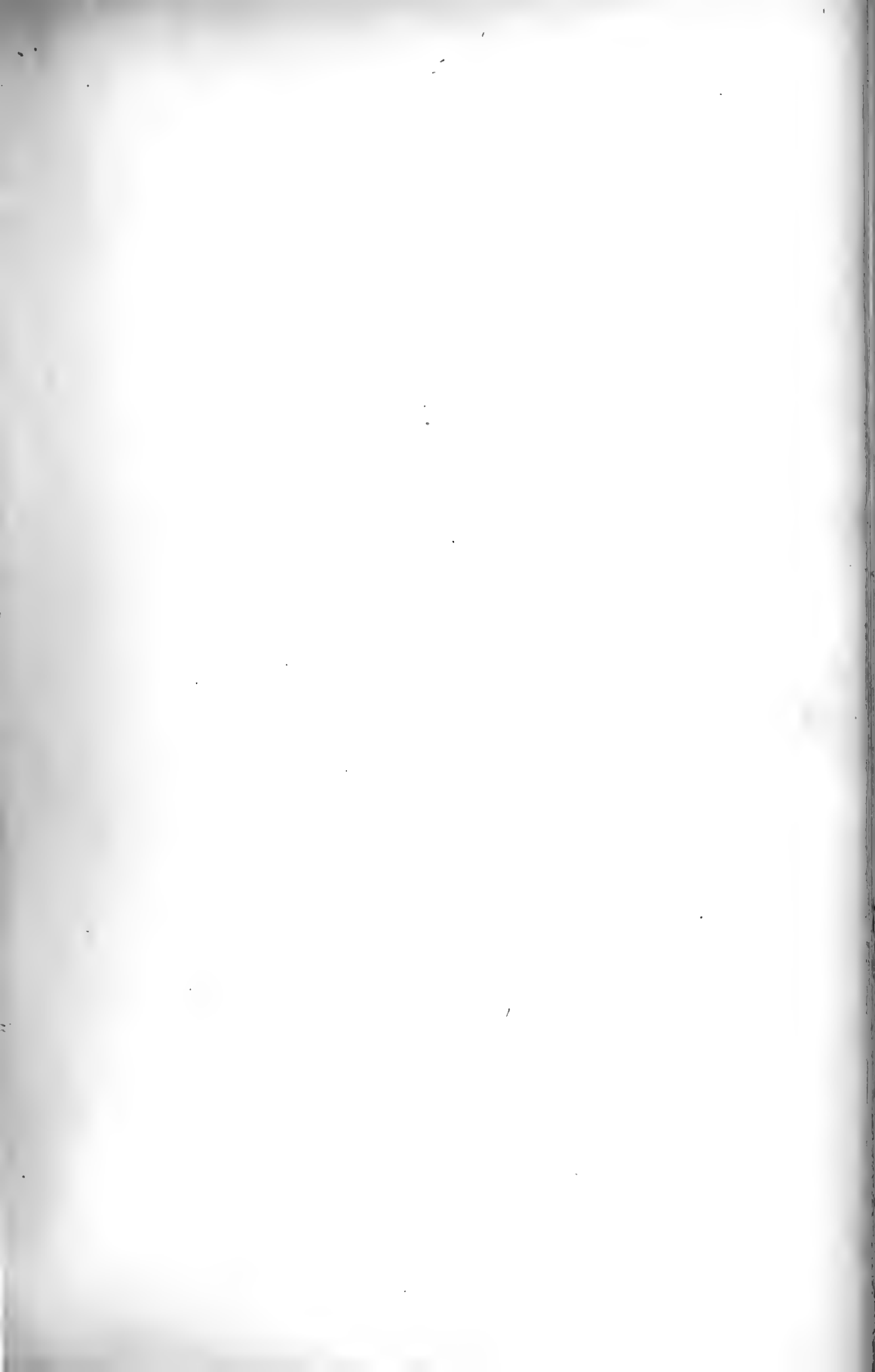
Fuligule nyroca, French; *Moor-Ente*, *Brand-Ente*, German; *Negrete*, Spanish.

This bird is an irregular and uncommon visitor to our islands, in which it has hitherto not been known to breed in a wild state. I have met with the White-eye in various parts of Southern Europe and North Africa, and discovered a nest containing eggs in Andalusia in 1872; this nest was placed amongst high rushes at a short distance from a small freshwater lake, and was composed of dry flags and rushes, and lined with thick brownish down and a few white feathers.

I have seldom found this bird in large numbers together. In habits it much resembles the Common Pochard, but its flight is much more swift than that of that species; it is remarkably tame and fearless of man

in comparison with others of the *Anatidæ*, and loves the thick covert of dense aquatic vegetation. The call-note is a harsh rattling monosyllable, frequently repeated. The flesh of this bird is, in my opinion, excellent.

The drawing for the Plate was taken from life at Lilford.



SCAUP.

FULIGULA MARILA (Linn.).

Anas marila, Linn. S. N. i. p. 196 (1766); Naum. xii. p. 88.
Fuligula marila, Macg. v. p. 116; Hewitson, ii. p. 426;
Yarr. ed. 4, iv. p. 423; Dresser, vi. p. 565.

Canard milouinan, French; *Berg-Ente*, German.

This is a northern breeding species which visits our coasts, occasionally in large numbers, generally late in autumn. It is a true sea-duck, and is rarely found on our inland fresh waters except in severe weather. In Iceland the Scaup is exceedingly common in the breeding-season, nesting in numbers on the shores and islands of many of the freshwater lakes.

This bird obtains its food almost entirely by diving, and is perfectly worthless for the table. The only part of the Mediterranean in which I have met with this species in any abundance was on the coast of Tunis; but it occurs occasionally in all parts of that Sea, more commonly in the eastern than in the western portions.



$\frac{1}{3}$

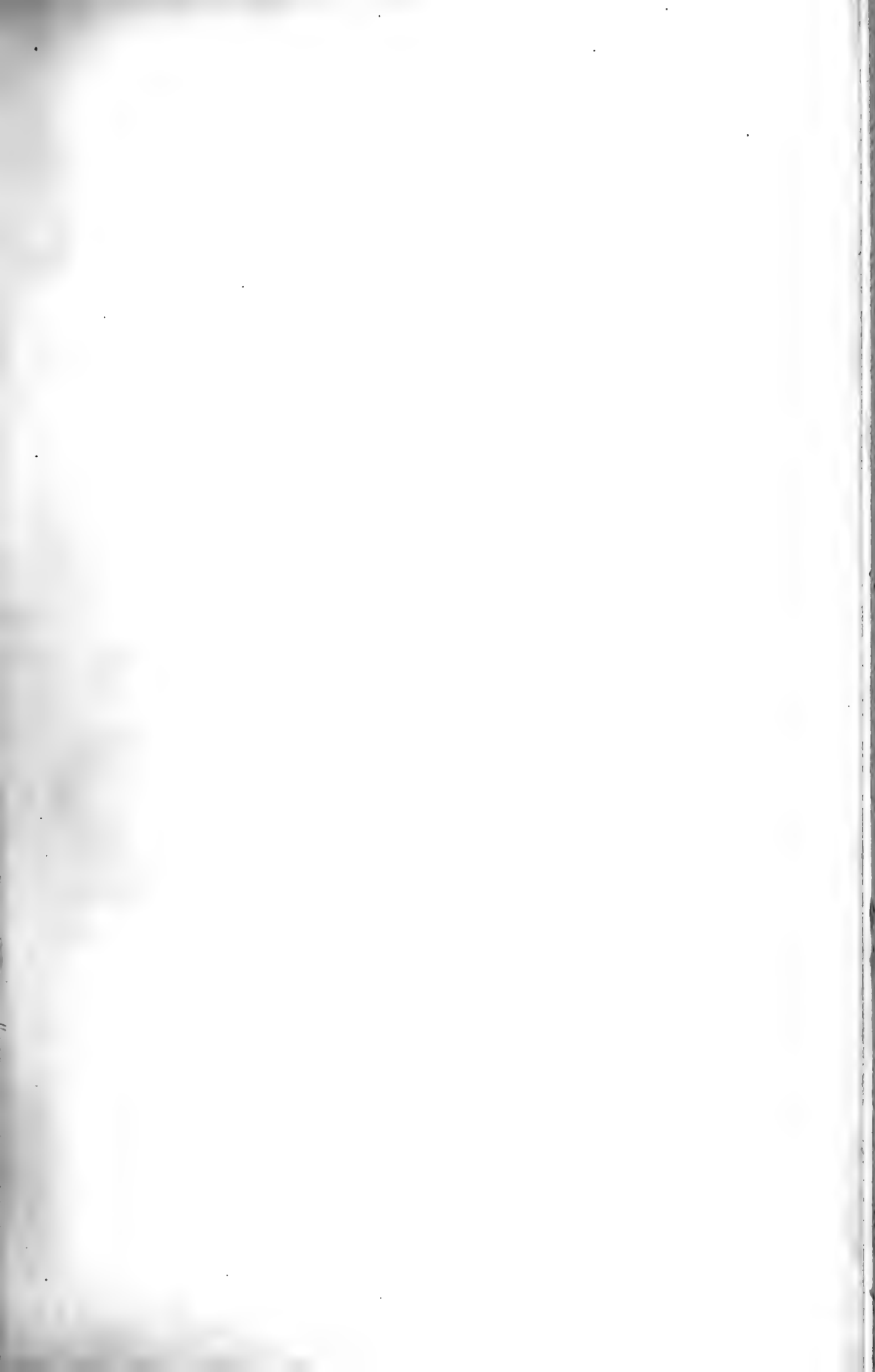
A. Thorburn

SCAUP.

Fuligula marila (Linn.).

Litho. W. Greve, Berlin.







5115

Litho. W. Greve, Berlin.

TUFTED DUCK
Fuligula cristata (Leach.)

TUFTED DUCK.

FULIGULA CRISTATA (Leach).

Anas cristata, *Leach*, Syst. Cat. M. & B. Brit. Mus. p. 39 (1816).

Anas fuligula, *Linn.* S. N. i. p. 207; *Naum.* xii. p. 64.

Fuligula cristata, *Macg.* v. p. 121; *Hewitson*, ii. p. 430; *Yarr.* ed. 4, iv. p. 430; *Dresser*, vi. p. 573.

Le Morillon, French; *Reiher-Ente*, *Hauben-Ente*, German; *Pelucón*, *Coquinero*, Spanish.

Common in most parts of the British Islands as an autumnal or winter visitor, and breeds in a good many of our English counties as well as in certain localities in Scotland and Ireland. Although frequently met with on the coast, the Tufted Duck decidedly prefers fresh to salt-water; it is an expert diver, but in that performance cannot equal the Scaup or the Pochard. The Tufted Duck thrives and breeds well in captivity, the young birds are much more easily reared than those of the Pochard.

This is one of the most common of Wild-fowl in certain parts of the Mediterranean during the winter, but in others is almost unknown. I found it especially abundant on the great salt lagoon of El Baheira, close to the city of Tunis.



1870

1871

1872

1873

1874

1875

1876

1877

1878

1879

1880

1881

1882

1883

1884

1885

1886

1887

1888

1889

1890

1891

1892

1893

1894

1895

1896

1897

1898

1899

1900



A. Thorburn.

$\frac{1}{3}$

GOLDENEYE.
Fuligula clangula (Linn.).

Litho. W. Greve. Berlin

GOLDEN-EYE.

FULIGULA CLANGULA (Linn.).

Anas clangula, Linn. S. N. i. p. 201 (1766); Naum. xii.
p. 162.

Anas glaucion, Linn. S. N. i. p. 201 (1766).

Clangula chrysophthalma, Macg. v. p. 174.

Fuligula vulgaris, Hewitson, ii. p. 435.

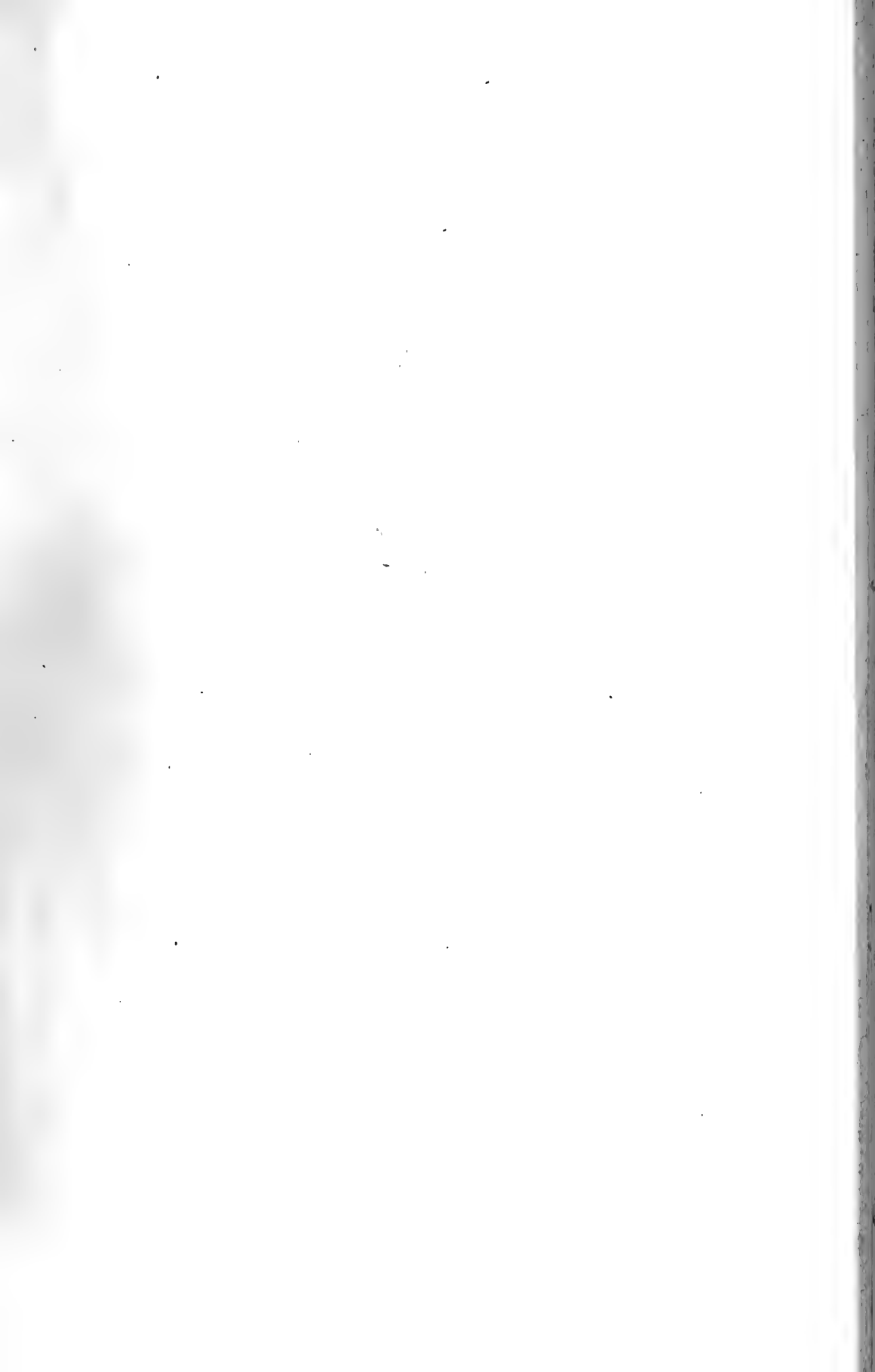
Clangula glaucion, Yarr. ed. 4, iv. p. 435; Dresser, vi.
p. 595.

Garrot, French; *Schellente*, *Kobelente*, *Knobbe*, German;
Retor ♂, *Perdigana d'aigua* ♀, Valencian.

This handsome bird is a common autumnal visitor to the British Islands from its breeding-quarters in the north of Europe. It feeds exclusively by diving, and in confinement greedily devours small fishes. It has always seemed to me that the Golden-eye prefers fresh water to salt, and I imagine that there are but few inland lakes or artificial reservoirs in the three kingdoms that are not occasionally visited by this lively and very ornamental migrant. On the Nene, in our county of Northampton, it may be considered an annual, but irregular traveller; in the neighbourhood of Lilford I have known of its occurrence in every month between August and May; the old males in the full black

and white plumage are comparatively scarce, and generally appear on the return passage in February, March, and April.

The Golden-eye usually nests in hollow trees, and lays ten or twelve eggs, of a fine bright green ; it is a very strong and rapid flyer, and the peculiar sounds produced by its wings have, on some parts of our coasts, gained for it the name of Rattle-wing. I am inclined to believe that the favourite natural food of this species consists of freshwater molluscs.





Litho. W. Greve Berlin.

BUFFEL-HEADED GOLDENEYE.

Clangula albeola (Linn.)

BUFFEL-HEADED GOLDENEYE.

CLANGULA ALBEOLA (Linn.).

Anas albeola, Linn. S. N. i. p. 199 (1766).

Clangula albeola, Macg. v. p. 185; Yarr. ed. 4, iv. p. 442;
Dresser, vi. p. 589.

This American species is of exceedingly rare occurrence on our side of the Atlantic. I gather from 'Yarrell,' 4th ed., that the "Buffel-head" has been obtained in British waters on not more than four or five occasions, and that there is no authentic record of its occurrence on the coasts of continental Europe. I quote from the work to which I have just referred to the effect that the breeding-range of this bird extends throughout the Fur countries and the northern portions of America, from the Atlantic to the Pacific as far south as the State of Maine. The nest is generally placed in a hollow tree (after the fashion of our common European Goldeneye) and profusely lined with down. In autumn and winter this Duck, according to Audubon, is to be seen in almost every part of the Union, frequenting the sea-shore, rivers, and lakes. From its usual fatness it is commonly known as "Butter-box,"

or "Butter-ball," and from its quickness in diving has also acquired the names of "Spirit Duck" and "Conjurer." The note is a mere croak. The migrations of this species extend to the Bermudas, Texas, Mexico, and Cuba.





$\frac{2}{5}$

LONG-TAILED DUCK.
Harelda glacialis (Linn.).

Litho. W. Greve, Berlin.

LONG-TAILED DUCK.

HARELDA GLACIALIS (Linn.).

Anas glacialis, Linn. S. N. i. p. 203 (1766); *Naum.* xii. p. 210.
Harelda glacialis, *Macg.* v. p. 192; *Yarr.* ed. 4, iv. p. 446;
Dresser, vi. p. 617.

Harelde glaciale, French; *Eis-Ente*, German.

As my acquaintance with this species is confined to the sight of a few at considerable distances off the coast of Fifeshire in the winter of 1855-56, I can only quote from the standard authorities with regard to its habits and distribution. Adult specimens are at all times rare to the south of Flamborough Head, though the young birds are by no means uncommon in the winter off the shores of Suffolk, Norfolk, and Lincolnshire. In Scotland this Duck is a familiar winter visitor to the eastern coast from Berwickshire to Caithness, and is very common in the Orkneys, Shetlands, and Hebrides. In the two first named of these groups small flocks arrive early in October, and remain about the inlets or "voes" till April. The Editor of the 4th ed. of 'Yarrell' has little doubt that this Duck occasionally breeds on some of the lochs of the island

of Yell, and observed it in Sommervoe in July 1879. In Ireland, though occasionally common in the north, it is scarce on the west, and rarely seen on the south coast. There is no record of the Long-tailed Duck's nesting in any part of the United Kingdom, but it breeds in considerable numbers in Iceland.

I find in the work from which I am quoting a long extract from the notes of the late Mr. Richard Dann with regard to this species as observed by him in Scandinavia, from which I gather that it is very numerous on the coasts of Norway and Sweden in winter, that it begins to draw northwards in March, and that a few straggling pairs breed on the small elevated lakes of the Dovre Fjeld. Mr. Dann remarks that those shot by him in this region in July were filled with the larvæ of aquatic insects. The nest of the Long-tailed Duck is generally placed by the edge of fresh water, and is composed of a few stems of grass with a thick lining of down. This species is said to be of a quarrelsome disposition, and is certainly a restless and noisy bird; its very peculiar, loud, and musical notes have gained for it a variety of local names, of which I may mention "Calloo," "Coal and Candlelight," "Cracker," and "Tilliboo."





Litho. W. Greve. Berlin.

$\frac{2}{5}$

HARLEQUIN DUCK.

Cosmonetta histriónica (Linn.).

HARLEQUIN DUCK.

COSMONETTA HISTRIONICA (Linn.).

Anas histrionica, Linn. S. N. i. p. 204 (1766); Naum. xii. p. 199.

Clangula histrionica, Macg. v. p. 169.

Fuligula histrionica, Hewitson, ii. p. 433.

Cosmonetta histrionica, Yarr. ed. 4, iv. p. 452; Dresser, vi. p. 609.

Canard histrion, French; *Kragen-Ente*, German.

With regard to the various recorded instances of the occurrence of this very beautiful species in Great Britain, there is no doubt that several in reality were referable to the Long-tailed Duck; and Mr. H. Saunders, in his 'Manual of British Birds,' published in 1889, gives us to understand that he was only acquainted with three preserved specimens in this country that could be regarded without doubt as genuinely British specimens. Of these, the first was obtained by Mr. Roberts, of Scarborough, from some fishermen who found it dead on the shore at Filey in the autumn of 1862; this is a male, and is now in the collection of Mr. J. Whitaker, of Rainworth. The other two, both young males, were killed near the Farne Islands on December 2nd, 1886, and are respectively in the collections of Mr. R. W. Chase and the

Rev. Julian Tuck. Iceland is said to be the nearest point to the British Islands where the Harlequin Duck is to be found; Mr. Shepherd observed it in considerable numbers in the north-west portion, frequenting the Laxà and other rapid streams, and making its nest in the holes of banks; and Dr. Kruper states that near Myvatn it always selects holes in the lava or under stones, the eggs being buried in a whitish down.

There are no authenticated instances of the occurrence of this species on any part of the continent of Europe, but it has been reported as a rare summer visitor to the neighbourhood of Archangel. The Harlequin Duck is found in the eastern half of Asiatic Siberia, and occurs in Northern Japan in winter. In North America this Duck is said to breed from Newfoundland to high Arctic regions, and winters south to the middle Atlantic States and the Ohio Valley. It has been observed on both coasts of Greenland. In Newfoundland, where these birds are known by the name of "Lords" and "Ladies," they are said to nest in hollow trees. Montague Chamberlain says:—"The favourite resort of these birds in summer is on the swift currents of a secluded stream or the surging pool at the base of a fall. In winter they are found in the bays and estuaries on the sea-coast. They swim buoyantly and dive with ease. Their flight is swift and powerful, and being shy and vigilant they are not easily shot." I find it stated by another author that these Ducks, young and old, tumble over and through rapids and cascades in an astonishing manner.





$\frac{1}{4}$

COMMON EIDER.

Somateria mollissima (Linn.).

Litho. W. Greve, Berlin.

COMMON EIDER.

SOMATERIA MOLLISSIMA (Linn.).

Anas mollissima, *Linn.* S. N. i. p. 198 (1766); *Naum.* xii. p. 252.

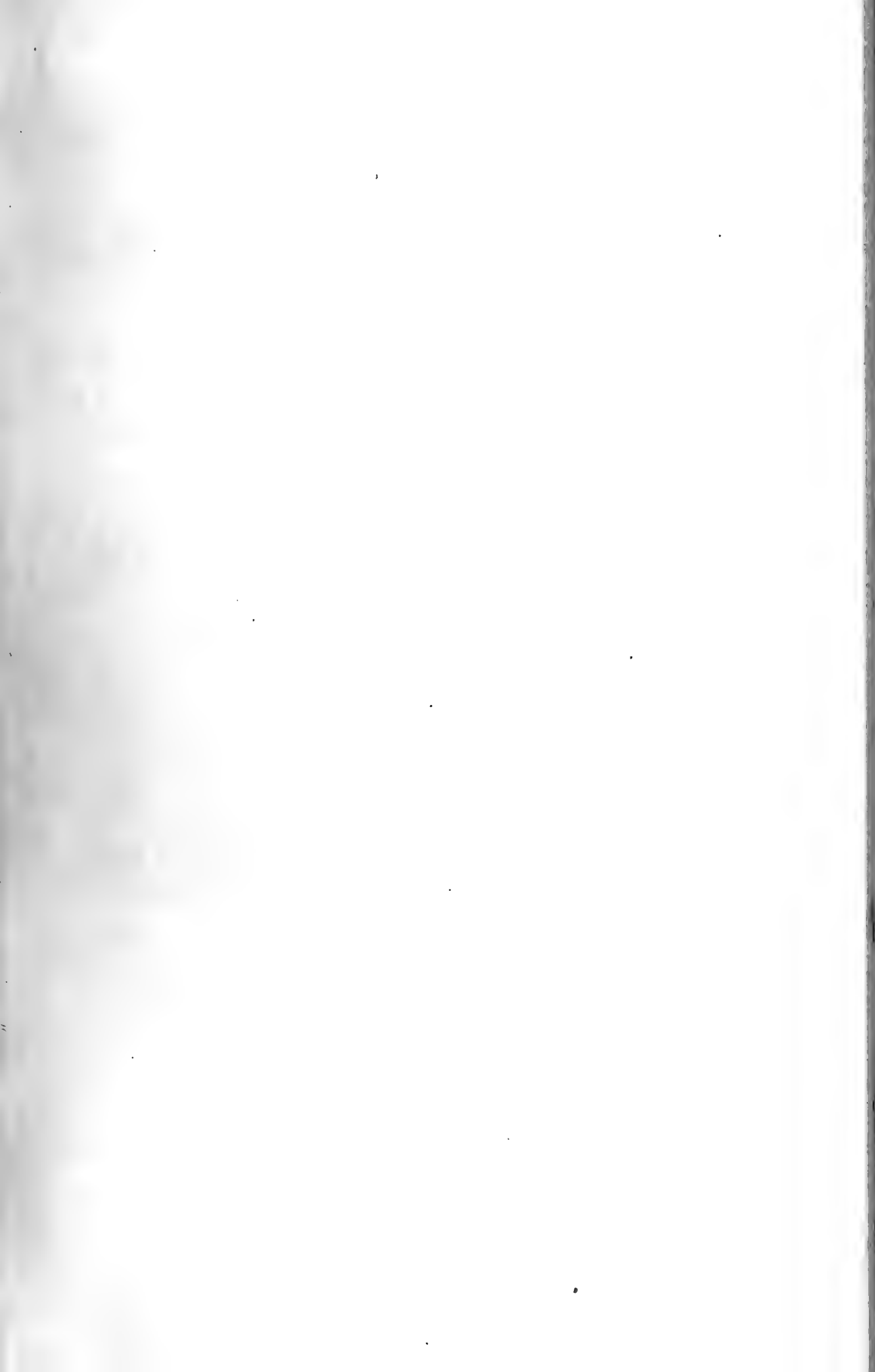
Somateria mollissima, *Macg.* v. p. 147; *Hewitson*, ii. p. 414; *Yarr.* ed. 4, iv. p. 457; *Dresser*, vi. p. 629.

Morillon Eider, French; *Eider-Gans*, German.

As this well-known and conspicuous Duck is entirely unknown to me in a state of freedom, I will content myself by summing up the main points related by our standard authorities concerning its habits. It breeds on the Farne and Coquet Islands and certain localities along the whole east coast of Scotland, in the Orkneys, Shetlands, and many of the Western Isles, including those of the St. Kilda group. To other parts of our coast it is an irregular and accidental winter visitor, and is said to be extremely rare on the shores of Ireland. Besides the British localities above mentioned, Iceland, the Faroes, Spitzbergen, and many of the islands off the Scandinavian coasts are frequented by these Ducks in great numbers during the breeding-season, when they become

perfectly tame, though at other times the Eider is exceedingly wary.

I find it stated in 'Yarrell' that in Iceland each nest produces an average of one sixth of a pound of down, which is worth from twelve to fifteen shillings per pound on the spot, and about $1\frac{1}{2}$ lb. is required to make a single coverlet. The usual complement of eggs is five, and in Iceland these eggs are mostly taken and pickled for winter consumption, only a few being left to hatch. I need hardly say that the Eider is essentially a sea-duck, and feeds almost exclusively upon marine mollusca. In captivity this species has often bred and the young birds reared upon a diet of worms, shrimps, and meat ; but in the only instance in which I received a pair of these birds alive, they were sent to me straight from the islet upon which they were hatched, and having become accustomed to their natural food, they declined everything that we offered to them, and consequently pined to death.





1
—
3

KING EIDER.

Somateria spectabilis (Linn.).

Litho. W. Greve, Berlin.

KING EIDER.

SOMATERIA SPECTABILIS (Linn.).

Anas spectabilis, Linn. S. N. i. p. 195 (1766); Naum. xii. p. 285.

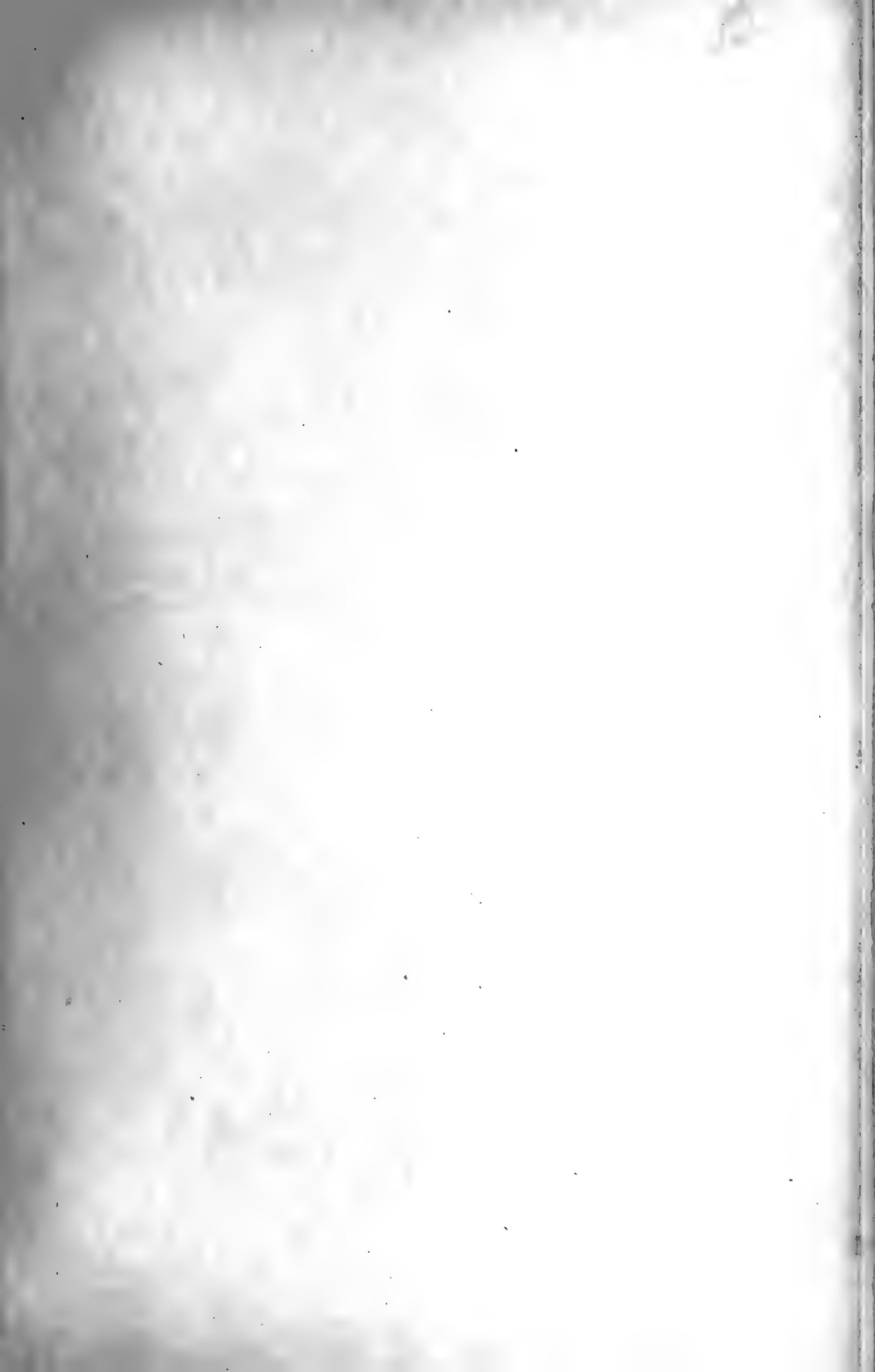
Somateria spectabilis, Macg. v. p. 158; Hewitson, ii. p. 417; Yarr. ed. 4, iv. p. 463; Dresser, vi. p. 643.

Canard à tête grise, French; *Pracht-Ente*, *Königs-Ente*, German.

This handsome bird is a rare visitor to the British Islands, and according to Mr. H. Saunders (4th ed. of 'Yarrell,' vol. iv.) many of the recorded captures and observations of this species on various parts of our coasts are more than doubtful. From the authority just referred to I gather that a specimen in the Museum at Boulogne is apparently the most southern of any King Eider hitherto recorded in Europe. In Iceland it is rare, it is an irregular visitant to the Færoes, and occurs on the northern coast of Norway every winter. It is doubtful if it breeds on Spitsbergen, where it has been observed; but it does nest on Novaya Zemlya, on the Kanin Peninsula, on the Yalmal Peninsula, between the Kara Sea and the Ob, and along the Arctic shores

125
of Siberia. On the other side of the Atlantic the summer-quarters of this Duck extend throughout the Arctic Regions from the shores of that ocean to the Pacific, its northward range extending to nearly as far as man has penetrated, for several nests were found by Major Feilden, when in H.M.S. 'Alert,' in $82^{\circ} 27'$ N. It also breeds in Greenland, but is far less abundant therein than the Common Eider. It occurs as far south as the latitude of New York, and has been recorded from California. In nesting and general habits the King Eider is said to resemble the Common Eider.

As I am totally unacquainted with this species, I have taken the whole of this article almost verbatim from the work referred to in my commencement thereof.





$\frac{1}{3}$

STELLER'S EIDER.
Somateria stelleri (Pall.)

Litho. W. Greve, Berlin.

STELLER'S EIDER.

SOMATERIA STELLERI (Pall.).

Anas stelleri, Pallas, Spic. Zool. fasc. vi. p. 35 (1769).

Anas dispar, Naum. xii. p. 240.

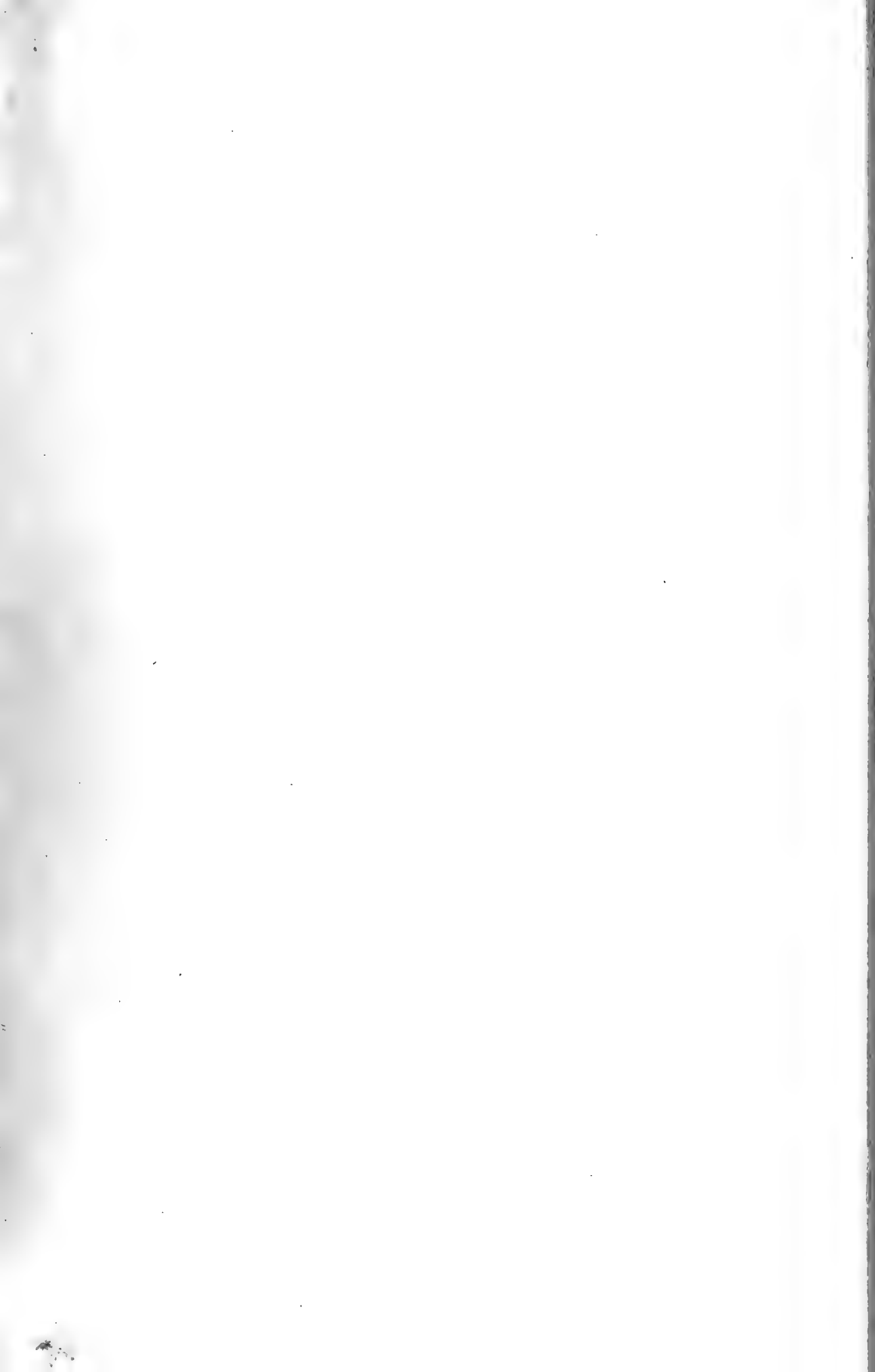
Stelleria dispar, Macg. v. p. 164.

Somateria stelleri, Yarr. ed. 4, iv. p. 468; Dresser, vi. p. 469.

Steller's Ente, *Scheck-Ente*, German.

Of this handsome species I know nothing whatever except from books, and I imagine that a great majority of my fellow-ornithologists are in the same position with regard to it. I can only find two records of its occurrence in England, or, indeed, anywhere else in the United Kingdom. These captures are stated to have taken place, respectively, in February 1830, at Caistor in Norfolk, and in August 1845 at Filey Brigg, on the coast of Yorkshire. The former bird is preserved in the Norwich Museum, and the latter is in the possession of Lord Scarsdale. This species visits the Varanger Fjord more or less regularly in the winter, and occasionally breeds upon the Norwegian shore of that gulf and also in Russian Finmark. Von Middendorff found it abundant and breeding upon the "tundras" of the Taimyr

Peninsula, and its range extends across Bering Sea to Alaska. It has occurred in Greenland. I quote verbatim from the 4th ed. of 'Yarrell' with regard to the nest and eggs of this species. "Von Middendorff describes the nest of Steller's Eider as cup-shaped and lined with down placed in the moss of the flat 'tundras': the eggs, seven to nine in number, are of a pale greenish-grey colour; average measurements 2.2 by 1.6 in. It is stated that this species flies in flocks, and never enters the mouths of rivers. Its food consists of marine insects and mollusks, and its cry is said to resemble that of the Common Teal, but is harsher."—"Steller's Eider has been observed occasionally at Heligoland; there are two records of its occurrence in Denmark, in the Baltic it is not uncommon, and one specimen is stated to have been obtained in 1855 between Calais and Boulogne."





29/1

COMMON SCOTER.
Edemia nigra (Linn.).

Litho. W. Greve, Berlin.

COMMON SCOTER.

ÆDEmia NIGRA (Linn.).

Anas nigra, Linn. S. N. i. p. 196 (1766); *Naum.* xii. p. 108.

Oidemia nigra, *Macg.* v. p. 140; *Hewitson*, ii. p. 421.

Edemia nigra, *Yarr.* ed. 4, iv. p. 472; *Dresser*, vi. p. 663.

Macreuse, French; *Trauer-Ente*, *Mohr-Ente*, German;
Pato negro, Spanish; *Morell de Mar*, Valencian.

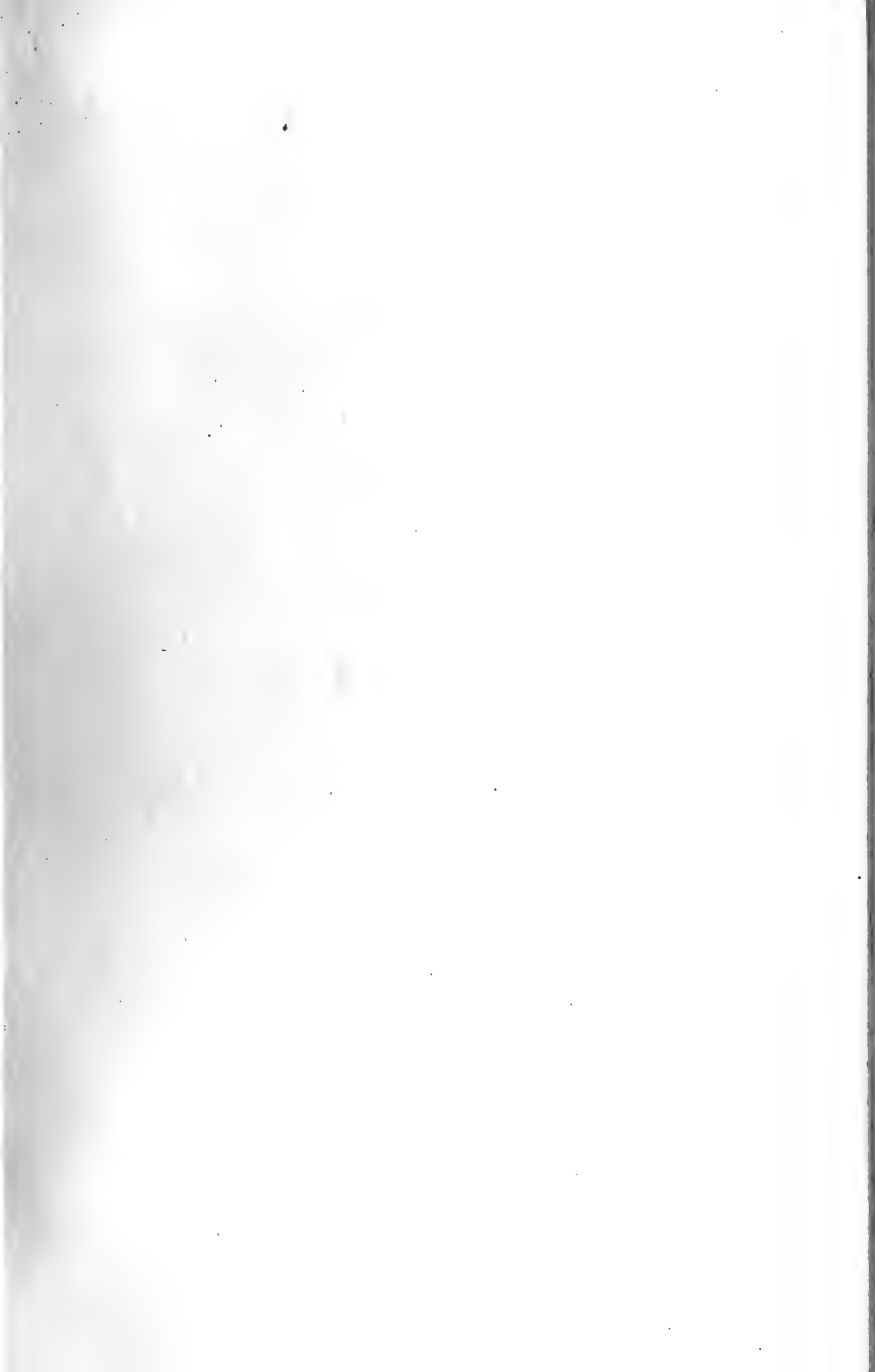
This species breeds throughout Northern Europe including Iceland, and a certain number nest annually in the northernmost counties of Scotland; but to us Englishmen in the restricted sense of the word, the bird is best known as an autumnal and often exceedingly abundant visitor to our coasts. I do not remember ever to have crossed the Channel from Dover, Calais, Folkestone, or Boulogne, at any time of year, without seeing more or less of the present species, and I saw a considerable flock on one occasion in June off the mouth of the Garonne. I have often been told of the presence of "acres of Black Ducks" in the winter in the Wash and in Yarmouth Roads, and my late friend and neighbour Mr. George Hunt some years ago brought home some two hundred Scoters as part of the result of

185

a few days' shooting with hand-guns in the former locality. Few parts of our shores are without some of these birds in the winter months, but they are said to be comparatively uncommon in the west and south of Ireland, though in my own experience occasionally to be seen in myriads off the north-eastern coasts of that island. I found this bird to be frequent in the harbours of Santander and Vigo in the months of December and January; Colonel Irby records it as occasionally very common about the Straits and Bay of Gibraltar; in the western basin of the Mediterranean it is decidedly uncommon, but occurs in the Adriatic. I have recently been informed of the appearance of large numbers of Scoters on the western coast of Morocco. This species feeds entirely by diving, its food consisting principally, if not exclusively, of marine mollusca, but in captivity it will readily devour small fishes. Mr. F. S. Mitchell, in his 'Birds of Lancashire,' gives some interesting details of the capture of Scoters and Scaup Ducks by means of nets set upon their feeding-places during "high-water time." It is somewhat remarkable that many, I think that I may say most, of the recorded inland occurrences of the Scoter in England that have come to my knowledge have taken place, not, as might be expected, in a stress of cold weather, but between June and the middle of October. From the nature of its diet, the flesh of the Scoter is coarse and fishy in flavour, but may be rendered very palatable by skinning and dexterous cooking. Mr. Hunt assured me that his cottagers very gratefully received, and heartily devoured, the Scoters that he gave to them, and I found that my yacht's crews

were never tired of 'Black Duck' as a standing dish at their messes. Most of these birds that were shot by us were obtained by sailing down upon them in a stiff breeze, but I believe that in the Wash the 'dodge' is to moor boats in a tide-way and take the Ducks as they pass to and from the mussel-banks upon which they feed: as may well be imagined, the Scoter takes a good deal of "knocking down," and is exceedingly difficult to secure if only winged or otherwise slightly wounded.







Litho. W. Greve, Berlin

$\frac{2}{7}$

VELVET SCOTER.
Oidemia fusca (Linn.)

A. Thorburn

VELVET SCOTER.

CEDEMIA FUSCA (Linn.).

Anas fusca, Linn. S. N. i. p. 196 (1766) ; *Naum.* xii. p. 123.

Oidemia fusca, Macg. v. p. 134 ; *Hewitson*, ii. p. 419.

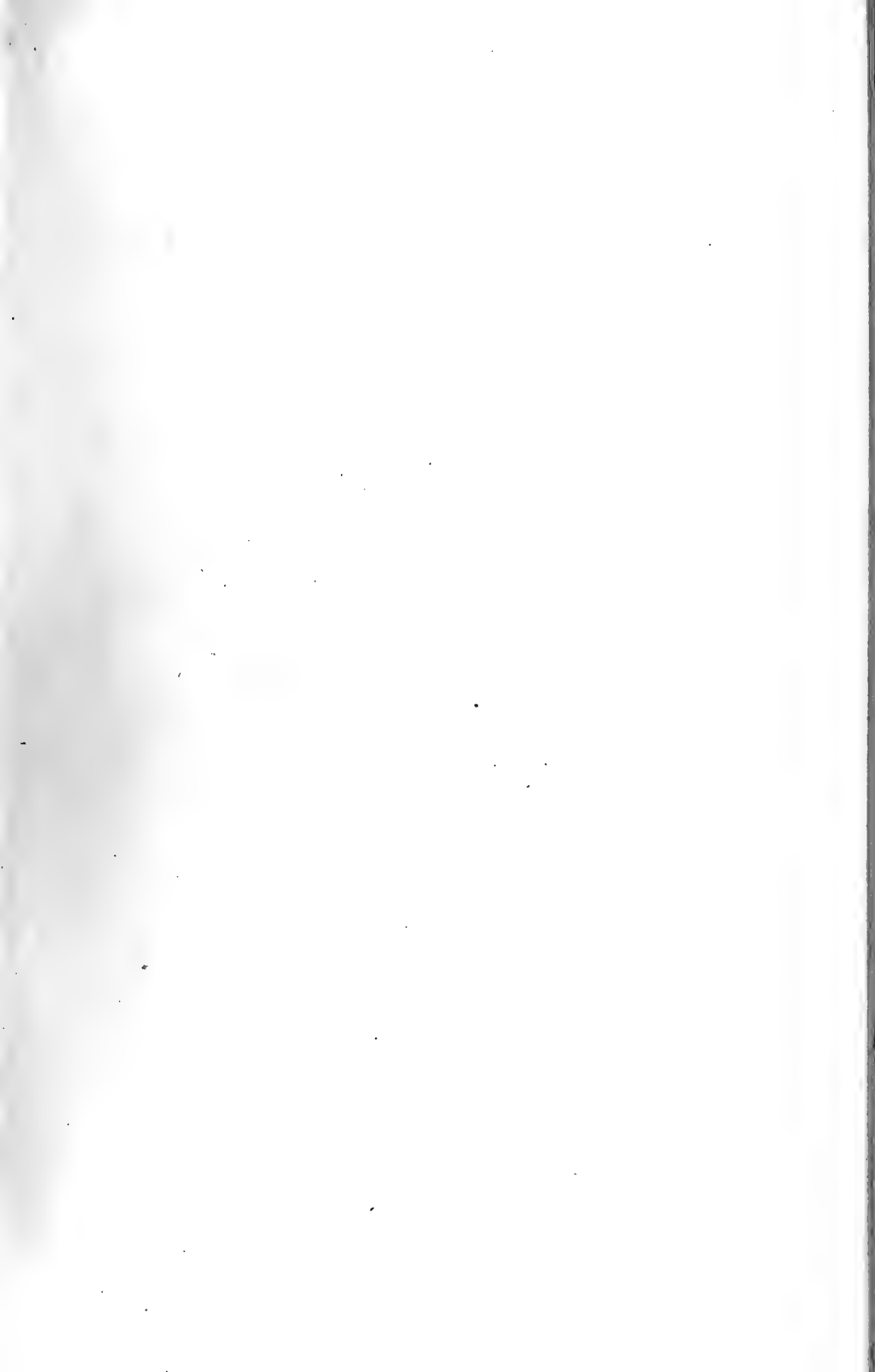
Cedemia fusca, Yarr. ed. 4, iv. p. 476 ; *Dresser*, vi. p. 657.

Grande-Macreuse, French ; *Sammet-Ente*, German ; *Pato negro real*, Spanish.

This fine Duck is an autumnal visitor to our coasts and occasionally wanders to considerable distances inland from its accustomed maritime haunts. My personal acquaintance with the Velvet Scoter is very scanty ; I observed small flocks of this species during very severe weather taking their pleasure off the northern shore of the Firth of Forth, generally well out of gunshot range from the land, but by chance, for I never was skilful with a rifle, I managed to put a bullet through the neck of a very fine old male, and had the good fortune to secure my prize out of a rough tumble of sea. A few Velvet Scoters haunted the harbour of Santander during November and December 1879, and I obtained two or three. I very much regret that through an error of mine in the Latin designation of

1876

this species, Mr. H. Saunders has stated that I found the Velvet Scoter in the locality last named during May 1876. The birds of this genus seen there at that season by us were Common Scoters, *Ædemia nigra*. I observed a pair of Velvet Scoters at a very short distance from our vessel, amidst hundreds of Wigeon, near the mouth of the Rhone in the winter of 1874, but this is, in my experience, very rare in the Mediterranean. I noticed that the small parties of Velvet Scoters in the harbour of Santander generally kept aloof from the Common Scoters, which were in much greater numbers; the present species was by far the more wary of the two. The food of this bird consists chiefly, if not entirely, of small marine animals, at least we could not find any trace of vegetable matter in the stomachs of those that we examined; I do not, however, consider the present species as such an adept and enduring diver as the Common Scoter. In Europe, we are told that this bird in the summer frequents the lakes of Scandinavia and Northern Russia.





$\frac{1}{3}$

SURF-SCOTER.

Oedemia perspicillata (Linn.)

Litho. W. Greve, Berlin

SURF-SCOTER.

ÆDEMIA PERSPICILLATA (Linn.).

Anas perspicillata, Linn. S. N. i. p. 201 (1766); Naum. xii. p. 140.

Oidemia perspicillata, Macg. v. p. 129.

Ædemia perspicillata, Yarr. ed. 4, iv. p. 481; Dresser, vi. p. 669.

Macreuse à large bec, French; *Brillen-Ente*, German.

Of this irregular and uncommon North-American visitor to our coasts, I know absolutely nothing from personal observation, but, as many of my subscribers ask me for notes to accompany my pictures, I trust that my friend Mr. H. Saunders will pardon me for an attempt to condense the information given by him in the 4th ed. of 'Yarrell' as follows:—The home of this Duck is in the northern regions of America, its summer range extending to the shores of the Arctic Sea. It nests in Newfoundland and in the Province of Quebec, has been met with in Greenland, and occurs in winter as far to the southward as Lower California on the Pacific, and Florida on the Atlantic coast of N. America. Audubon mentions the enormous number of this species

that passed the shores of Labrador on the northward migration, and this report has been very recently confirmed to me verbally from the personal experience of Mr. H. E. Dresser. Audubon found a nest of this Duck upon a vast freshwater marsh in Labrador, and describes it as being entirely composed of withered and rotten weeds, the former being circularly arranged over the latter, producing a well-rounded cavity six inches in diameter by two and a half in depth. This nest was lined with the down of the bird, and contained five eggs of a uniform pale yellowish or cream colour. This was the only nest found on this occasion; the female on leaving her eggs uttered a rough guttural cry, somewhat resembling that of the Goosander in similar circumstance. It appears that the Surf-Scoter has been met with more frequently in the Orkneys than elsewhere on our side of the Atlantic, but it has been captured in many other localities in Great Britain and Ireland, as also in the Faeroes, Swedish Lapland, in the Baltic, once off Heligoland, and in some numbers on the northern coast of France.





$\frac{1}{3}$

GOOSANDER.

Mergus merganser, *Linn.*

Litho. W. Greve, Berlin.

GOOSANDER.

MERGUS MERGANSER, Linn.

Mergus merganser, Linn. S. N. i. p. 208 (1766); *Naum.* xii. p. 356; *Hewitson*, ii. p. 439; *Yarr.* ed. 4, iv. p. 488; *Dresser*, vi. p. 685.

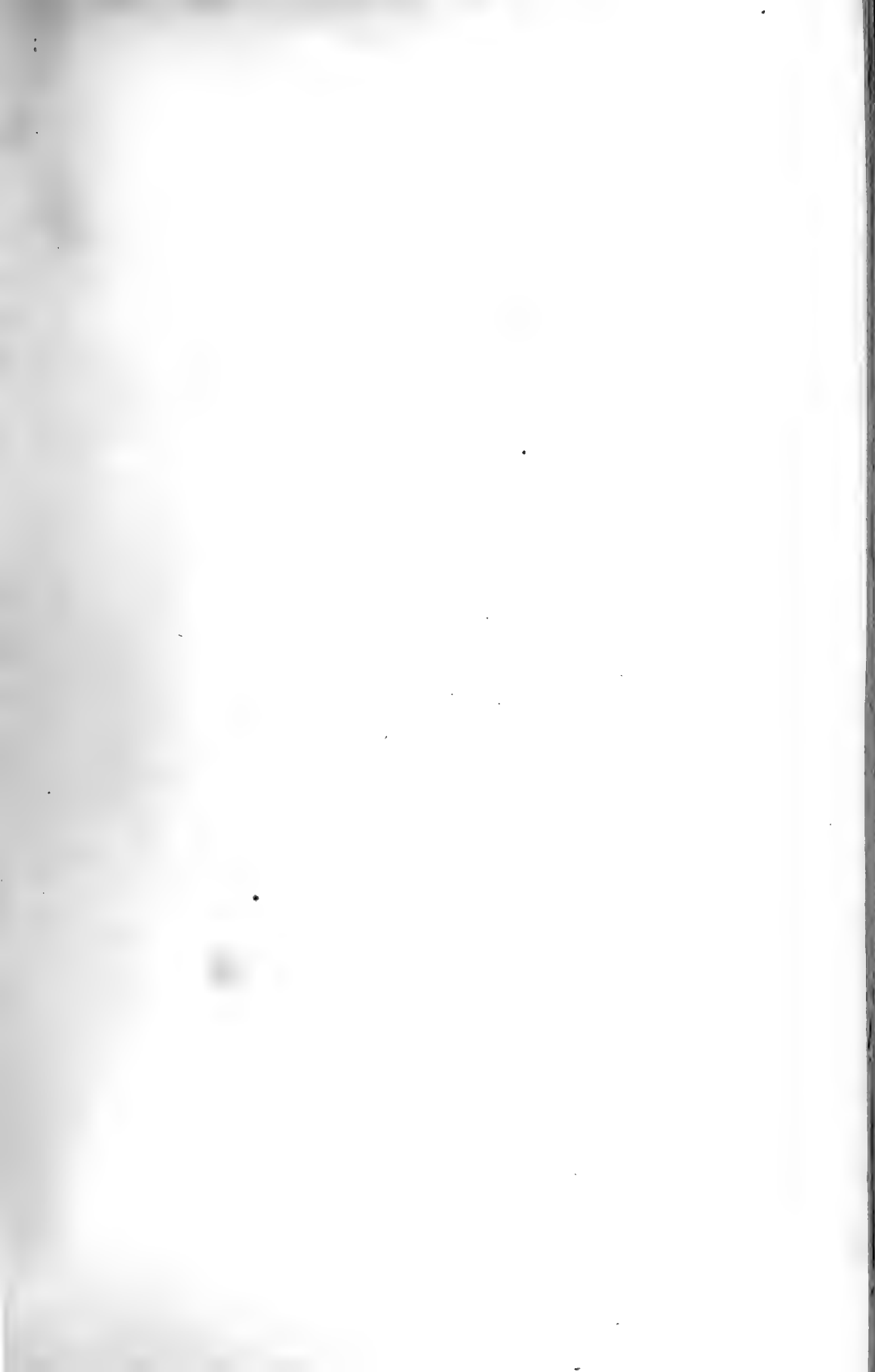
Meganser castor, *Macg.* v. p. 207.

Grand Harle, French; *Grosser Säger*, German; *Bech de Serra gran*, Valencia.

This is a species with which I have only a winter, and, generally speaking, distant acquaintance in a wild state, though I have been fortunate enough to keep a few pinioned Goosanders through two moults upon our ponds at Lilford. Although of late years this beautiful bird has been found breeding in various parts of the Scottish Highlands, it is best known as a winter visitor in England, and, in my experience, is of much more frequent occurrence on inland waters than its close congener the Red-breasted or Common Merganser, though the latter is by far the more abundant species of the two in the British Islands.

The Goosander is a wary bird, at least during its winter visits to the waters with which I am best acquainted, but does not seem to me to be up to so

many "dodges" for concealment as the Merganser; it is, however, a very powerful and active diver and a strong and rapid flyer. The capacity of these birds for swallowing fishes almost equals that of the Cormorant, but I find that my pinioned birds will, when they have the choice, select lumps of raw meat in preference to salt-water fishes; I think that their favourite morsels are small eels and frogs, but they are not very particular, and I have several times seen them bolt lumps of the barley-meal pudding that we give to our Ducks and Pochards. This species is said to breed in Iceland, throughout Scandinavia, and certain other parts of Northern Europe; its favourite nesting-places are hollow trees, and in Scandinavia it frequently takes possession of the wooden boxes put up by the natives for the special purpose of securing its eggs and those of the Golden-eye. The nest is also occasionally made upon the ground amongst rocks and stones, but, according to all accounts, never without some shelter. In my experience this is a rare bird in the Mediterranean. I am inclined to think that it is more frequently met with in the eastern portions of that sea during the winter months than in the great western basin that separates the Iberian and Italian Peninsulas. I cannot conclude without another word of admiration for this bird, which I consider to be, when in full masculine plumage, about the most beautiful of British birds.





A. Thorburn

1
3

COMMON MERGANSER.

Mergus serrator, *Lin.*

COMMON, OR RED-BREASTED MERGANSER.

MERGUS SERRATOR, Linn.

Mergus serrator, Linn. S. N. i. p. 208 (1766); Naum. xii. p. 333; Hewitson, ii. p. 437; Yarr. ed. 4, iv. p. 494; Dresser, vi. p. 693.

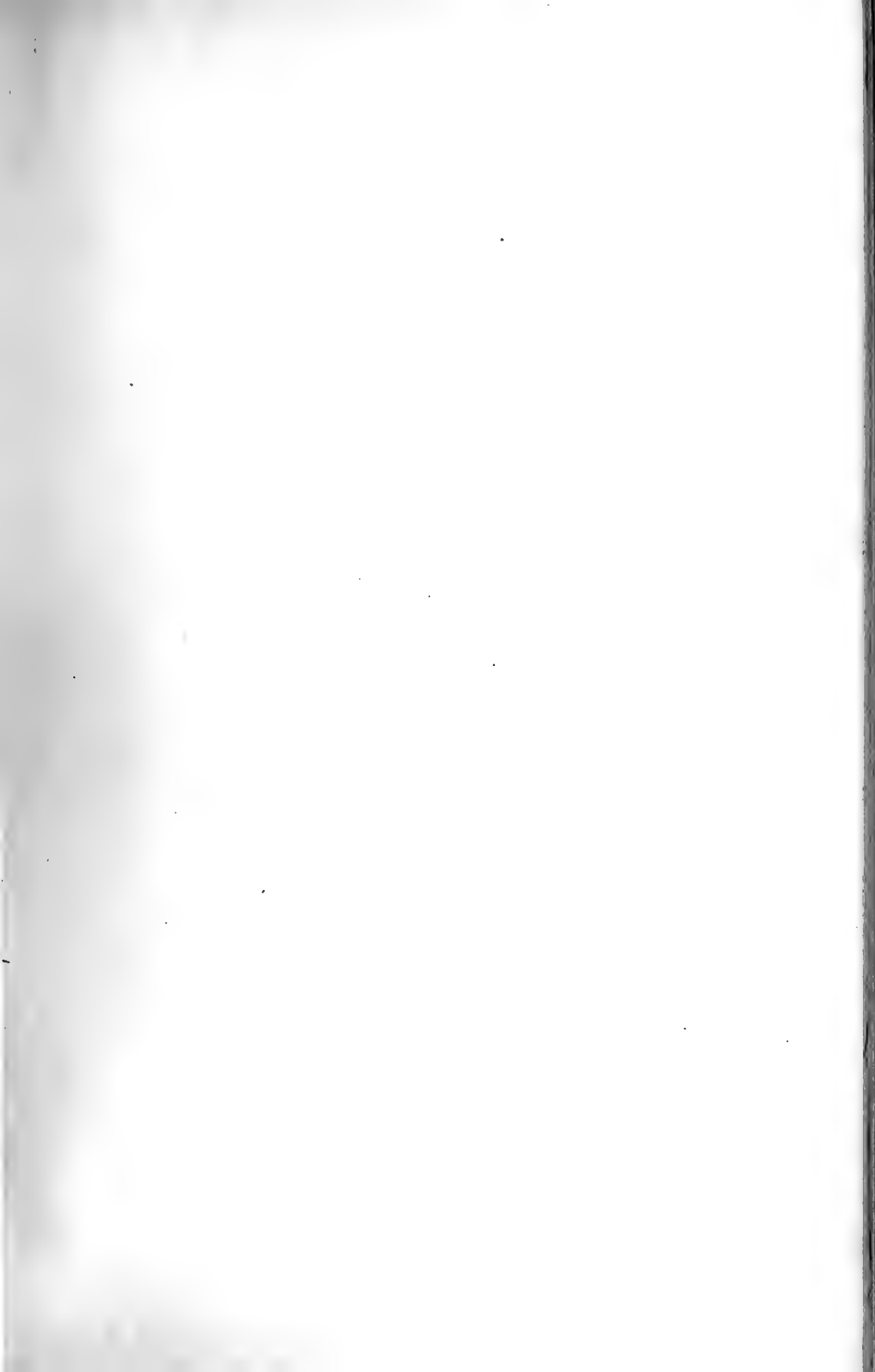
Merganser serrator, Macg. v. p. 216.

Le Harle huppé, French; *Mittlerer Säger*, German; *Pato de sierra*, *Serreta*, Spanish.

This bird is not uncommon during the autumn and winter months on most parts of our coasts, and breeds in considerable numbers in certain districts of Scotland and Ireland. The nest of the Merganser is generally placed in thick covert on the shores or islands of fresh-water lakes and rivers, often amongst rocks and stones overgrown and interspersed with heather, brambles, or rushes, and, as I have been informed, occasionally in a disused rabbits' burrow. The eggs, which vary in complement from seven to ten, are of a drab-green colour, and are usually hatched out about the beginning of July. My own acquaintance with this species in summer is entirely confined to some lakes in the west of Ireland; but in winter I have observed it on almost every tidal estuary that I have visited. It is also

460
exceedingly common at that season in many parts of the tideless Mediterranean and on the Lake of Geneva; it is, however, not so frequent a cold-weather visitor to the inland waters of our own country as the Goosander.

The Merganser is known by many names in the British Islands, perhaps its most common designations on the English coasts are "Saw-Bill," "Jack-Saw," and "Jackawake." "Dundiver" is also occasionally applied to the females and young birds, but more commonly to those of the Goosander. In the part of Ireland to which I have above alluded the present species was generally known as "Skeld-Duck;" but in the north of that country "Scale-Duck" is the usual rendering. I believe that both of these latter are forms of "Sheld-Duck,"—a misapplication of name not confined to feathered bipeds in the "Sister Island." The Merganser, as I believe, feeds entirely upon small fishes obtained by diving. It is a wary bird in the winter season, although in the summer it will sometimes allow of the close approach of a boat; its powers of concealment, both in the water and ashore, are wonderful; it is a swift and powerful flyer, but has a marked objection to travelling over the land. I do not recollect ever to have heard any cry or call uttered by the present species. I have not been able hitherto to keep a Merganser alive in confinement for more than a few days; but I must admit that I have not had more than two or three opportunities of trying to do so.





2/5

SMEEW.

Mergus albellus, Linn.

Litho. W. Grave, Berlin.

SMEW.

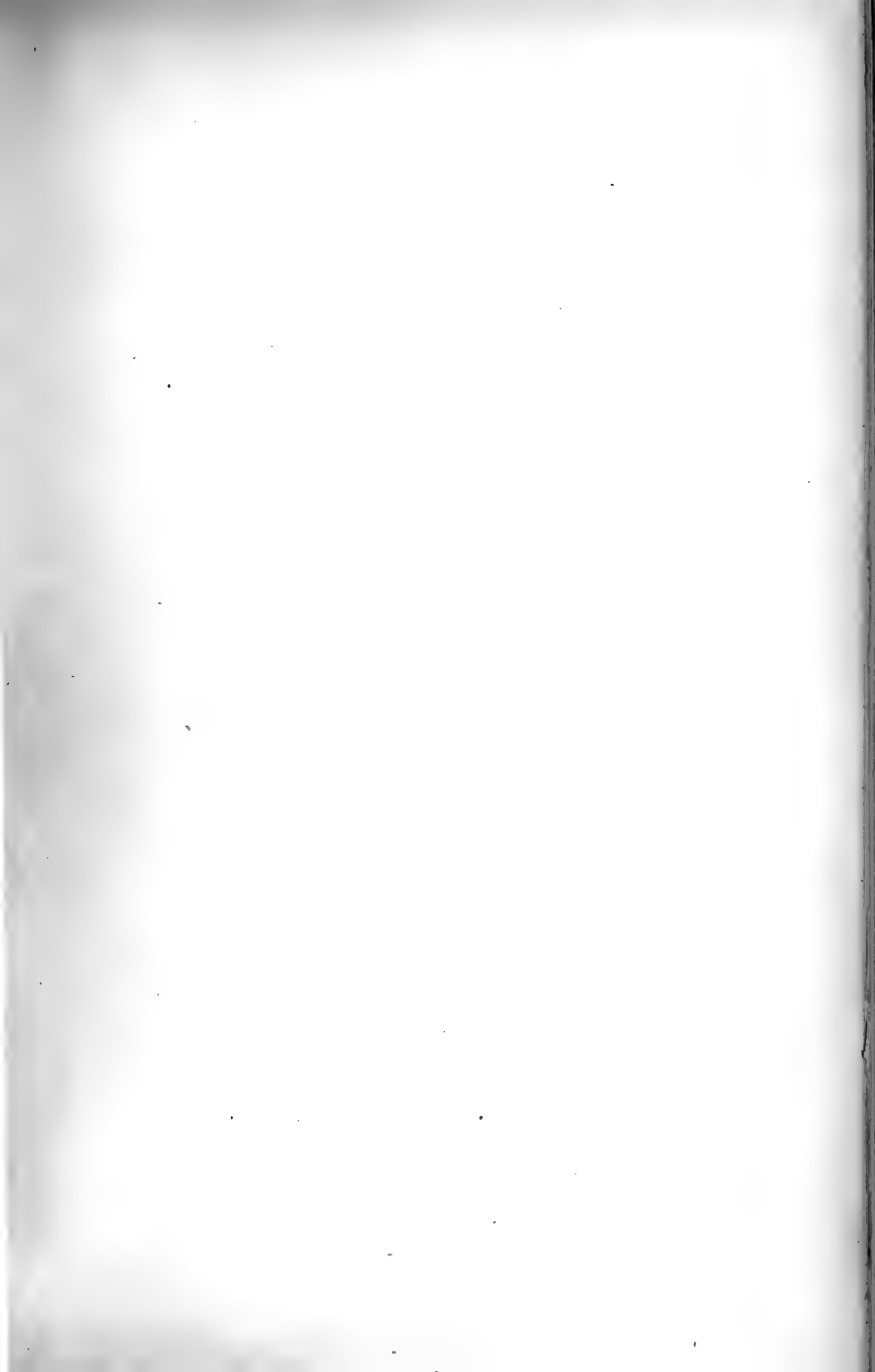
MERGUS ALBELLUS, Linn.

Mergus albellus, Linn. S. N. i. p. 209 (1766); Naum. xii. p. 314; Macg. v. p. 233; Yarr. ed. 4, iv. p. 499; Dresser, vi. p. 699.

Le petit Harle huppé, French; *Kleiner Säger*, German; *Bech de serra petit*, Catalan.

This species is a winter visitor to our country, frequenting principally the estuaries of our eastern and southern coasts; it is never very abundant, but its numbers vary greatly in different years, often without any perceptible weather-cause. As is the case with many of our rarer *Anatidæ*, adult males are comparatively uncommon, at all events in our markets, either because, as Mr. H. Saunders states, they keep farther out at sea than the young birds and females, or because of their extreme wariness. My own acquaintance with the Smew in a natural state of freedom is chiefly confined to having occasionally met with it singly on our river Nene in Northamptonshire, generally, but not invariably, during severe weather, and having found it not uncommonly in the bays and creeks of Epirus and

the Ionian Islands during the two winters that I passed in that part of the world. In these last-named localities we frequently met with young Smews in narrow inlets, where approach was easy, but their elders took remarkably good care of themselves, and it was only by chance that we ever got within shot of an adult. The flight of the Smew much resembles and is quite as swift as that of the Teal, and, in common with the other members of the genus *Mergus*, it is a strong and rapid diver. I have of late years obtained several of this species alive; but I cannot say that they thrive very well on my "fowl-ponds," though they take readily enough to a diet of chopped fish and meat, and are especially fond of frogs. Two adult males, now in my possession, have become very tame, and come out of the water to be fed together with a heterogeneous assemblage of Cranes, Storks, Herons, Ducks, Pochards, and Goosanders. Mr. Wolley's most interesting account of his discovery of the breeding-habits of the Smew in Lapland was originally published in 'The Ibis' for 1859, and is quoted at considerable length by the editor of the fourth edition of 'Yarrell,' vol. iv. pp. 501-506. It is sufficient to say here that this species is stated, *loc. supr. cit.*, to breed in the northern districts of Russia and in suitable localities in the valley of the Volga, and along the whole line of the Ural Mountains, as well as in Northern Asia. In winter it ranges from the coasts of Portugal and Morocco to Japan, China, and the northern portions of India; in my own experience it is very much more frequent in the eastern than the western districts of the Mediterranean.



HOODED MERGANSER.

MERGUS CUCULLATUS, Linn.

Mergus cucullatus, Linn. S. N. i. p. 207 (1766); Yarr. ed. 4, iv. p. 509.

Merganser cucullatus, Macg. v. p. 225.

This beautiful American species is a rare visitor to the British Islands. As I know nothing about it except from books, I must refer my readers to the 4th ed. of 'Yarrell,' where a full list of occurrences on our shores up to date of publication may be found. It is there stated that there is no authenticated instance of the occurrence of this species on the continental coast of Europe. I find, in Montague Chamberlain's 'Handbook of the Ornithology of the United States and Canada,' vol. ii. pp. 363, 364, that this species "ranges throughout North America, breeding from about latitude 45° to the vicinity of the Arctic Circle, and wintering from Massachusetts (sparingly) to the Southern States. It is rather common as a spring and fall migrant in New England and adjacent provinces, but breeds in numbers in the northern portions of Ontario and in Manitoba."

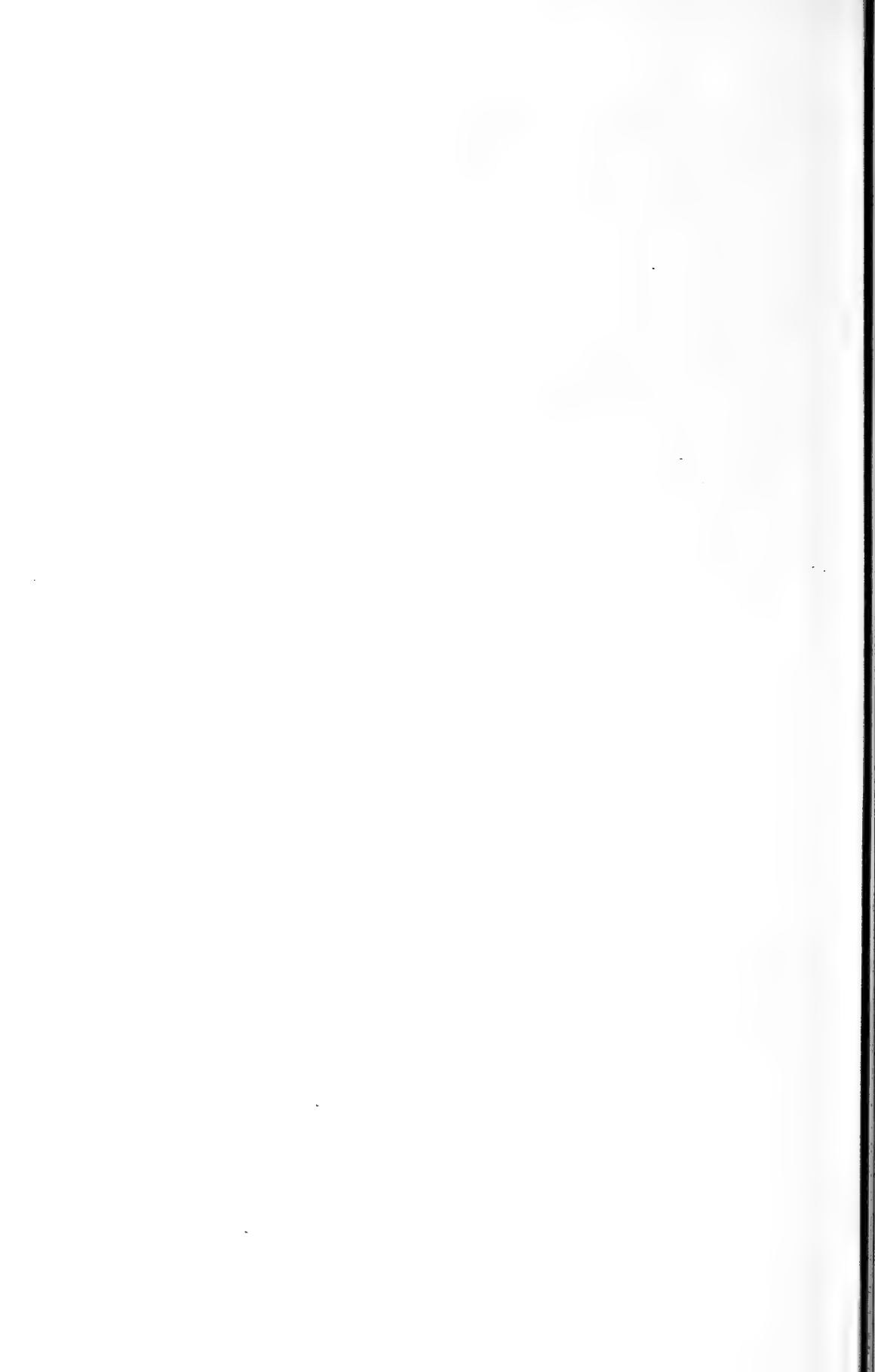


2/3

HOODED MERGANSER,
Mergus cucullatus, Linn.

Litho. W. Greve, Berlin.

А. П. ОБОУТ



APPENDIX.

LIST OF BIRDS

SAID TO HAVE OCCURRED IN THE BRITISH ISLANDS,
BUT NOT FIGURED IN THIS WORK.

- RED-TAILED BUZZARD. *Buteo borealis* (Gm.).
AFRICAN BUZZARD. *Buteo desertorum* (Daudin).
RED-SHOULDERED BUZZARD. *Buteo lineatus* (Gm.).
BLACK BUZZARD. *Archibuteo sancti-johannis* (Gm.).
SWALLOW-TAILED KITE. *Elanoides furcatus* (Linn.).
BLACK-WINGED KITE. *Elanus cæruleus* (Desf.).
AMERICAN GOS-HAWK. *Astur atricapillus* (Wils.).
SAW-WHET OWL. *Nyctala acadica* (Gm.).
AMERICAN SCREECH-OWL. *Scops asio* (Linn.).
AMERICAN HAWK-OWL. *Surnia funerea* (Linn.).
GREAT BLACK WOODPECKER. *Picus martius*, Linn.
HAIRY WOODPECKER. *Dendrocopus villosus* (Forst.).
DOWNY WOODPECKER. *Dendrocopus pubescens* (Linn.).
MIDDLE SPOTTED WOODPECKER. *Dendrocopus medius*
(Linn.).
EUROPEAN THREE-TOED WOODPECKER. *Picoides tridactylus*
(Linn.).
GOLDEN-WINGED WOODPECKER. *Colaptes auratus* (Linn.).
BELTED KINGFISHER. *Ceryle alcyon* (Linn.).
BLUE-TAILED BEE-EATER. *Merops philippensis* (Linn.).
ABYSSINIAN ROLLER. *Coracias abyssinicus*, Bodd.
INDIAN ROLLER. *Coracias indicus*, Linn.
BLACK-BILLED CUCKOO. *Coccyzus erythrophthalmus* (Wils.).
RUSTY GRACKLE. *Scolecophagus ferrugineus* (Gm.).

- RED-WINGED STARLING. *Agelæus phæniceus* (Linn.).
 AMERICAN MEADOW-STARLING. *Sturnella magna* (Linn.).
 PALLAS'S GREAT GREY SHRIKE. *Lanius major*, Pall.
 AMERICAN GREY SHRIKE. *Lanius excubitorides*, Sw. & Rich.
 RED-EYED FLYCATCHER. *Vireo olivaceus* (Linn.).
 CHESTNUT-BELLIED SWALLOW. *Hirundo savignii*, Steph.
 RED-RUMPED SWALLOW. *Hirundo rufula*, Temm.
 WHITE-BELLIED SWALLOW. *Hirundo bicolor*, Vieill.
 PURPLE MARTIN. *Progne purpurea* (Linn.).
 WHITE-COLLARED FLYCATCHER. *Muscicapa collaris*, Bechst.
 CEDAR-BIRD. *Ampelis cedrorum* (Vieill.).
 MELODIOUS WARBLER. *Hypolais polyglotta* (Vieill.).
 CETTI'S WARBLER. *Cettia sericea* (Temm.).
 SUBALPINE WARBLER. *Sylvia subalpina*, Temm.
 RUBY-CROWNED WREN. *Regulus calendula* (Linn.).
 AMERICAN ROBIN. *Turdus migratorius*, Linn.
 BLUE ROCK-THRUSH. *Monticola cyanus* (Linn.).
 MOCKING-BIRD. *Mimus polyglottus* (Linn.).
 DUSKY BULBUL. *Pycnonotus barbatus* (Desf.).
 GOLD-VENTED THRUSH. *Pycnonotus capensis* (Linn.).
 AMERICAN PIPIT. *Anthus ludovicianus* (Gm.).
 CALANDRA LARK. *Melanocorypha calandra* (Linn.).
 WHITE-THROATED SPARROW. *Zonotrichia albicollis* (Gm.).
 NONPAREIL FINCH. *Cyanospiza ciris* (Linn.).
 CANARY. *Serinus canarius* (Linn.).
 YELLOW-RUMPED SEED-EATER. *Crithagra chrysopyga*,
 Swains.
 CITRIL FINCH. *Chrysomitris citrinella* (Linn.).
 PASSENGER PIGEON. *Ectopistes migratoria* (Linn.).
 EASTERN TURTLE-DOVE. *Turtur orientalis*, Gray.
 ROCK-PTARMIGAN. *Lagopus rupestris* (Gm.).
 BARBARY PARTRIDGE. *Caccabis petrosa* (Gm.).
 VIRGINIAN COLIN. *Ortyx virginianus* (Linn.).
 ANDALUSIAN HEMIPODE. *Turnix sylvatica* (Desf.).
 CAROLINA RAIL. *Rallus carolinus* (Linn.).

- GREEN-BACKED GALLINULE. *Porphyrio smaragdonotus*,
Temm.
- MARTINIQUE GALLINULE. *Porphyrio martinicus* (Linn.).
- BALEARIC CRANE. *Balearica pavonina* (Linn.).
- WHITE SHEATH-BILL. *Chionis alba*, Gm.
- ASIATIC GOLDEN PLOVER. *Charadrius fulvus*, Gm.
- WILSON'S SNIPE. *Gallinago wilsoni* (Temm.).
- SHARP-TAILED SANDPIPER. *Tringa acuminata* (Horsf.).
- SPOTTED SANDPIPER. *Totanus macularius* (Linn.).
- RÜPPELL'S TERN. *Sterna bergi*, Licht.
- LAUGHING GULL. *Larus atricilla*, Linn.
- MEDITERRANEAN HERRING-GULL. *Larus cachinnans*, Pall.
- PIED-BILLED GREBE. *Podilymbus podiceps* (Linn.).
- BLACK-BROWED ALBATROSS. *Diomedea melanophrys*, Temm.
- CAPE PIGEON. *Daption capense* (Linn.).
- LEVANTINE SHEARWATER. *Puffinus yelkouanus*, Acerbi.
- WHITE PELICAN. *Pelecanus onocrotalus*, Linn.
- TROPIC-BIRD. *Phaeton aethereus* (Linn.).
- EGYPTIAN GOOSE. *Chenalopez ægyptiacus* (Linn.).
- BAR-HEADED GOOSE. *Anser indicus* (Lath.).
- CANADA GOOSE. *Bernicla canadensis* (Linn.).
- CHINESE GOOSE. *Anser cygnoides* (Linn.).
- SPUR-WINGED GOOSE. *Plectropterus gambensis* (Linn.).
- AMERICAN SWAN. *Cygnus americanus*, Sharpless.
- TRUMPETER SWAN. *Cygnus buccinator*, Rich.
- MUSCOVY DUCK. *Cairina moschata* (Linn.).
- SUMMER DUCK. *Æx sponsa* (Linn.).
- RING-NECKED DUCK. *Fuligula collaris* (Donovan).
- LESSER SCAUP DUCK. *Fuligula affinis*, Eyton.
- BARROW'S GOLDEN-EYE. *Clungula islandica* (Gm.).



INDEX.

ABYSSINIAN ROLLER, vii. 145.
abyssinicus, *Coracias*, vii. 145.
acadica, *Nyctala*, vii. 145.
Acanthyllis caudacuta, ii. 42.
ACCENTOR, ALPINE, iii. 2.
Accentor collaris, iii. 2.
— *modularis*, iii. 4.
Accipiter nisus, i. 66.
Acredula caudata, ii. 110.
— *rosea*, ii. 110.
Acrocephalus aquaticus, iii. 42.
— *luscinioides*, iii. 46.
— *palustris*, iii. 38.
— *phragmitis*, iii. 40.
— *streperus*, iii. 36.
— *turdoides*, iii. 34.
acuminata, *Tringa*, vii. 147.
acuta, *Anas*, vii. 92.
adamsi, *Colymbus*, vi. 102.
Aedon galactodes, iii. 30.
Ægialitis asiatica, v. 27.
— *cantiana*, v. 35.
— *curonica*, v. 33.
— *hiaticula*, v. 29.
— *vocifera*, v. 37.
agocephala, *Limosa*, v. 125.
ægyptiacus, *Chenaloper*, vii. 147.
ægyptius, *Caprimulgus*, ii. 36.
æruinosus, *Circus*, i. 67.
æsalon, *Falco*, i. 50.
æthereus, *Phaeton*, vii. 147.
Æx sponsa, vii. 147.
affinis, *Fuligula*, vii. 147.

VOL. VII.

AFRICAN BUZZARD, vii. 145.
Agelæus phæniceus, vii. 146.
Alauda arborea, iv. 8.
— *arvensis*, iv. 3.
— *cristata*, iv. 6.
alba, *Ardea*, vii. 15.
—, *Chionis*, vii. 147.
—, *Ciconia*, vii. 41.
—, *Motacilla*, iii. 106.
ALBATROSS, BLACK-BROWED, vii. 247.
albellus, *Mergus*, vii. 141.
albeola, *Clangula*, vii. 117.
albicilla, *Haliaeetus*, i. 8.
albicollis, *Zonotrichia*, vii. 146.
albifrons, *Anser*, vii. 60.
Alca impennis, vi. 81.
— *torda*, vi. 79.
Alcedo ispida, ii. 14.
alcyon, *Ceryle*, vii. 145.
alle, *Mergulus*, vi. 94.
alpestris, *Otocorys*, iv. 1.
alpina, *Tringa*, v. 81.
ALPINE ACCENTOR, iii. 2.
— PIPIT, iii. 121.
aluco, *Syrnium*, i. 87.
AMERICAN BITTERN, vii. 39.
— BLUE-WINGED TEAL, vii. 100.
— GOS-HAWK, vii. 145.
— GREEN-WINGED TEAL, vii. 96.
— GREY SHRIKE, vii. 146.
— HAWK-OWL, vii. 145.
— MEADOW-STARLING, vii. 146.
— PIPIT, vii. 146.

2

- AMERICAN ROBIN, vii. 146.
 — SCREECH-OWL, vii. 145.
 — STINT, v. 90.
 — SWAN, vii. 147.
 — WIGEON, vii. 104.
 — YELLOW-BILLED CUCKOO, ii. 28.
americana, *Mareca*, vii. 104.
americanus, *Coccyzus*, ii. 28.
 —, *Cygnus*, vii. 147.
Anupelis cedrorum, vii. 146.
 — *garrulus*, ii. 92.
anæsthera, *Sterna*, vi. 28.
Anas acuta, vii. 92.
 — *boscas*, vii. 86.
 — *carolinensis*, vii. 96.
 — *cercia*, vii. 98.
 — *clypeata*, vii. 90.
 — *crecca*, vii. 94.
 — *discors*, vii. 100.
 — *strepera*, vii. 87.
 ANDALUSIAN HEMIPODE, vii. 146.
anglica, *Sterna*, vi. 9.
anglorum, *Puffinus*, vi. 140.
Anous stolidus, vi. 29.
Anser albifrons, vii. 60.
 — *brachyrhynchus*, vii. 63.
 — *cinereus*, vii. 55.
 — *cygnoides*, vii. 147.
 — *indicus*, vii. 147.
 — *leucopsis*, vii. 69.
 — *segetum*, vii. 61.
Anthus arboreus, iii. 115.
 — *campestris*, iii. 127.
 — *cervinus*, iii. 120.
 — *ludovicianus*, vii. 146.
 — *obscurus*, iii. 126.
 — *pratensis*, iii. 118.
 — *richardi*, iii. 130.
 — *spioletta*, iii. 121.
apiaster, *Merops*, ii. 16.
apivorus, *Pernis*, i. 21.
apus, *Cypselus*, ii. 38.
 AQUATIC WARBLER, iii. 42.
aquaticus, *Acrocephalus*, iii. 42.
aquaticus, *Cinclus*, iii. 99.
 —, *Rallus*, iv. 139.
Aquila chrysaetus, i. 2.
 — *haliaetus*, i. 8.
 — *nævia*, i. 3.
arborea, *Alauda*, iv. 8.
arboreus, *Anthus*, iii. 115.
Archibuteo sancti-johannis, vii. 145.
 ARCTIC BLUE-THROAT, iii. 10.
 — TERN, vi. 20.
arctica, *Fratercula*, vi. 96.
arcticus, *Colymbus*, vi. 104.
Ardea alba, vii. 15.
 — *bubulcus*, vii. 23.
 — *cinerea*, vii. 12.
 — *garzetta*, vii. 19.
 — *purpurea*, vii. 13.
 — *ralloides*, vii. 25.
 — *virescens*, vii. 30.
Ardetta minuta, vii. 33.
arenaria, *Calidris*, v. 97.
argentatus, *Larus*, vi. 51.
arquata, *Numenius*, v. 131.
arvensis, *Alauda*, iv. 3.
 ASIATIC GOLDEN PLOVER, vii. 147.
asiatica, *Ægialitis*, v. 27.
Asio brachyotus, i. 95.
 — *otus*, i. 91.
asio, *Scops*, vii. 145.
Astur atricapillus, vii. 145.
 — *palumbarius*, i. 59.
ater, *Parus*, ii. 104.
Athene noctua, i. 102.
atra, *Fulica*, iv. 147.
atricapilla, *Muscicapa*, ii. 89.
 —, *Sylvia*, iii. 56.
atricapillus, *Astur*, vii. 145.
atricilla, *Larus*, vii. 147.
atrigularis, *Turdus*, iii. 88.
 AUK, GREAT, vi. 81.
 —, LITTLE, vi. 94.
auratus, *Colaptes*, vii. 145.
auritus, *Podiceps*, vi. 115.
 AVOCET, v. 49.
Avocetta recurvirostra, v. 49.

- bailloni*, *Crex*, iv. 135.
 BAILLON'S CRAKE, iv. 135.
 BALEARIC CRANE, vii. 147.
Balearica pavonina, vii. 147.
 BARBARY PARTRIDGE, vii. 146.
barbatus, *Pycnonotus*, vii. 146.
 BAR-HEADED GOOSE, vii. 147.
 BARNACLE GOOSE, vi. 69.
 BARN-OWL, i. 109.
 BARRED OR LESSER-SPOTTED WOOD-
 PECKER, ii. 10.
 ——— WARBLER, iii. 60.
 ——— WOODPECKER, ii. 10.
 BARROW'S GOLDEN-EYE, vii. 147.
 BAR-TAILED GODWIT, v. 129.
Bartramia longicauda, v. 101.
 BARTRAM'S PLOVER, v. 101.
bassana, *Sula*, vii. 9.
 BEAN-GOOSE, vii. 61.
 BEARDED REEDLING, ii. 93.
 BEE-EATER, ii. 16.
 ———, BLUE-TAILED, vii. 145.
 BELTED KINGFISHER, vii. 145.
bergi, *Sterna*, vii. 147.
Bernicla brenta, vii. 71.
 ——— *canadensis*, vii. 147.
 ——— *ruficollis*, vii. 67.
bewicki, *Cygnus*, vii. 79.
 BEWICK'S SWAN, vii. 79.
biarmicus, *Panurus*, ii. 93.
bicolor, *Hirundo*, vii. 146.
bifasciata, *Loxia*, iv. 80.
 BITTERN, vii. 38.
 ———, AMERICAN, vii. 39.
 ———, LITTLE, vii. 33.
 BLACK-BELLIED DIPPER, iii. 102.
 BLACK-BILLED CUCKOO, vii. 145.
 BLACKBIRD, iii. 92.
 BLACK-BROWED ALBATROSS, vii.
 147.
 BLACK BUZZARD, vii. 145.
 BLACKCAP, iii. 56.
 BLACK GROUSE, iv. 106.
 ——— GUILLEMOT, vi. 91.
 BLACK-HEADED BUNTING, iv. 34.
 BLACK-HEADED GULL, vi. 39.
 BLACK KITE, i. 27.
 ——— REDSTART, iii. 16.
 ——— STORK, vii. 45.
 BLACK-TAILED GODWIT, v. 125.
 BLACK TERN, vi. 1.
 BLACK-THROATED DIVER, vi. 104.
 ——— THRUSH, iii. 88.
 ——— WHEATEAR, iii. 26.
 BLACK-WINGED KITE, vii. 145.
 ——— STILT, v. 51.
 BLUE-HEADED WAGTAIL, iii. 116.
 BLUE ROCK-THRUSH, vii. 146.
 BLUE-TAILED BEE-EATER, vii. 145.
 BLUE-THROAT, ARCTIC, iii. 10.
 ———, WHITE-SPOTTED, iii. 12.
 BLUE TITMOUSE, ii. 102.
 BONAPARTE'S GULL, vi. 25.
 ——— SANDPIPER, v. 80.
borealis, *Buteo*, vii. 145.
 ———, *Motacilla*, iii. 112.
 ———, *Numenius*, v. 137.
boscas, *Anas*, vii. 86.
Botaurus lentiginosus, vii. 39.
 ——— *stellaris*, vii. 38.
brachydactyla, *Calendrella*, iv. 9.
brachyotus, *Asio*, i. 95.
brachyrhynchus, *Anser*, vii. 63.
 BRAMBLING, iv. 37.
 BRANDT'S BUNTING, iv. 32.
 BRENT GOOSE, vii. 71.
brenta, *Bernicla*, vii. 71.
brevipes, *Æstrelata*, vi. 146.
britannicus, *Parus*, ii. 104.
 BRITISH COAL TITMOUSE, ii. 104.
 BROAD-BILLED SANDPIPER, v. 74.
 BROWN LINNET, iv. 64.
 ——— OWL, i. 87.
brünnichii, *Uria*, vi. 87.
 BRÜNNICH'S GUILLEMOT, vi. 87.
Bubo marinus, i. 97.
bubulcus, *Ardea*, vii. 23.
buccinator, *Cygnus*, vii. 147.
 BUFF-BACKED HERON, vii. 23.
 BUFF-BREASTED SANDPIPER, v. 99.

- BUFFLE-HEADED GOLDEN-EYE, vii.
 117.
 BUFFON'S SKUA, vi. 77.
 BULBUL, DUSKY, vii. 146.
 —, GOLD-VENTED, vii. 146.
 BULLFINCH, iv. 68.
 —, NORTHERN, iv. 70.
bulweri, *Procellaria*, vi. 144.
 BULWER'S PETREL, vi. 144.
 BUNTING, BLACK-HEADED, iv. 34.
 —, BRANDT'S, iv. 32.
 —, CIRL, iv. 28.
 —, CORN, iv. 24.
 —, LAPLAND, iv. 16.
 —, LITTLE, iv. 22.
 —, ORTOLAN, iv. 30.
 —, REED, iv. 18.
 —, RUSTIC, iv. 20.
 —, SNOW, iv. 14.
 —, YELLOW, iv. 26.
 BUSTARD, GREAT, v. 1.
 —, INDIAN HOUBARA, v. 10.
 —, LITTLE, v. 5.
Buteo borealis, vii. 145.
 — *desertorum*, vii. 145.
 — *lagopus*, i. 19.
 — *lineatus*, vii. 145.
 — *vulgaris*, i. 16.
 BUZZARD, AFRICAN, vii. 145.
 —, BLACK, vii. 145.
 —, COMMON, i. 16.
 —, HONEY, i. 21.
 —, RED-SHOULDERED, vii. 145.
 —, RED-TAILED, vii. 145.
 —, ROUGH-LEGGED, i. 19.

Caccabis petrosa, vii. 146.
 — *rufa*, iv. 120.
cachinnans, *Larus*, vii. 147.
cælebs, *Fringilla*, iv. 36.
cæruleus, *Elanus*, vii. 145.
 —, *Parus*, ii. 102
 —, *Porphyrio*, iv. 146.
cæsia, *Sitta*, ii. 112.

Cairina moschata, vii. 147.
 CALANDRA LARK, vii. 146.
calandra, *Melanocorypha*, vii. 146.
Calendrella brachydactyla, iv. 9.
calendula, *Regulus*, vii. 146.
Calidris arenaria, v. 97.
calidris, *Totanus*, v. 113.
campestris, *Anthus*, iii. 127.
 CANADA GOOSE, vii. 147.
canadensis, *Bernicla*, vii. 147.
canarius, *Serinus*, vii. 146.
 CANABY, vii. 146.
candicans, *Falco*, i. 36.
cannabina, *Linota*, iv. 64.
canorus, *Cuculus*, ii. 21.
cantiaca, *Sterna*, vi. 13.
cantiana, *Ægialitis*, v. 35.
canus, *Larus*, vi. 49.
canutus, *Tringa*, v. 95.
 CAPE PIGEON, vii. 147.
capense, *Daption*, vii. 147.
capensis, *Pycnonotus*, vii. 146.
 CAPERCAILLIE, iv. 101.
 CAPPED PETREL, vi. 148.
Caprimulgus ægyptius, ii. 36.
 — *europæus*, ii. 29.
 — *ruficollis*, ii. 33.
carbo, *Phalacrocorax*, vii. 1.
Carduelis elegans, iv. 53.
 CAROLINA RAIL, vii. 146.
carolinensis, *Anas*, vii. 96.
carolinus, *Rallus*, vii. 146.
 CARRION-CROW, ii. 46.
caryocatactes, *Garrulus*, ii. 62.
casarca, *Tadorna*, vii. 81.
caspia, *Sterna*, vi. 11.
 CASPIAN PLOVER, v. 27.
 — TERN, vi. 11.
catarrhactes, *Lestris*, vi. 69.
caudacuta, *Acanthyllis*, ii. 42.
caudata, *Acredula*, ii. 110.
 —, *Pica*, ii. 58.
 CEDAR-BIRD, vii. 146.
cedrorum, *Ampelis*, vii. 146.
cenchrus, *Falco*, i. 55.

- Certhia familiaris*, ii. 114.
cervinus, *Anthus*, iii. 120.
Ceryle alcyon, vii. 145.
Cettia sericea, vii. 146.
 CETTI'S WARBLER, vii. 146.
 CHAFFINCH, iv. 36.
Charadrius fulvus, vii. 147.
 — *pluvialis*, v. 39.
Chelidon urbica, ii. 80.
Chen hyperboreus, vii. 66.
Chenalopex ægyptiacus, vii. 147.
 CHESTNUT-BELLIED SWALLOW, vii. 146.
 CHIFFCHAFF, iii. 68.
 CHINESE GOOSE, vii. 147.
 — RING-NECKED PHEASANT, iv. 116.
Chionis alba, vii. 147.
chloris, *Fringilla*, iv. 50.
chloropus, *Gallinula*, iv. 141.
 CHOUGH, RED-BILLED, ii. 56.
chrysaetus, *Aquila*, i. 2.
Chrysomitris citrinella, vii. 146.
chrysopyga, *Criithagra*, vii. 146.
Ciconia alba, vii. 41.
 — *nigra*, vii. 45.
Cinclus aquaticus, iii. 99.
 — *melanogaster*, iii. 102.
cinerea, *Ardea*, vii. 12.
 —, *Perdix*, iv. 118.
 —, *Squatarola*, v. 41.
 —, *Sylvia*, iii. 50.
cineraceus, *Circus*, i. 73.
cinereus, *Anser*, vii. 55.
cioides, *Emberiza*, iv. 32.
circia, *Anas*, vii. 98.
Circus æruginosus, i. 67.
 — *cineraceus*, i. 73.
 — *cyaneus*, i. 69.
ciris, *Cyanospiza*, vii. 146.
 CIRL BUNTING, iv. 28.
cirlus, *Emberiza*, iv. 28.
 CITRIL FINCH, vii. 146.
citrinella, *Chrysomitris*, vii. 146.
 —, *Emberiza*, iv. 26.
Clangula albeola, vii. 117.
 — *islandica*, vii. 147.
clangula, *Fuligula*, vii. 115.
clypeata, *Anas*, vii. 9.
 COAL TITMOUSE, ii. 104.
Coccothraustes vulgaris, iv. 46.
Coccyzus americanus, ii. 28.
 — *erythrophthalmus*, vii. 145.
Colaptes auratus, vii. 145.
colchicus, *Phasianus*, iv. 114.
 COLIN, VIRGINIAN, vii. 146.
 COLLARED PETREL, vi. 146.
collaris, *Accentor*, iii. 2.
 —, *Fuligula*, vii. 147.
 —, *Muscicapa*, vii. 146.
collurio, *Lanius*, ii. 74.
Columba livia, iv. 89.
 — *ænas*, iv. 85.
 — *palumbus*, iv. 81.
Colymbus adamsi, vi. 102.
 — *arcticus*, vi. 104.
 — *glacialis*, vi. 97.
 — *septentrionalis*, vi. 105.
 COMMON OR BROWN LINNET, iv. 64.
 — BUZZARD, i. 16.
 — CRANE, iv. 151.
 — CUCKOO, ii. 21.
 — EIDER, vii. 123.
 — or GREY PARTRIDGE, iv. 118.
 — GUILLEMOT, vi. 83.
 — GULL, vi. 49.
 — HERON, vii. 12.
 — or HOUSE-SPARROW, iv. 42.
 — KINGFISHER, ii. 14.
 — MERGANSER, vii. 139.
 — PRATINCOLE, v. 15.
 — REDSHANK, v. 113.
 — SANDPIPER, v. 103.
 — SCOTER, vii. 129.
 — SNIPE, v. 63.
 — TERN, vi. 17.
 — WAGTAIL, PIED or, iii. 104.
 — WHITETHROAT, iii. 50.
 — WILD SWAN, vii. 75.
communis, *Coturnix*, iv. 121.
 —, *Grus*, iv. 151.
 —, *Turtur*, iv. 93.

- COOT, iv. 147.
Coracias abyssinicus, vii. 145.
 — *garrulus*, ii. 17.
 — *indicus*, vii. 145.
corax, *Corvus*, ii. 44.
 CORMORANT, vii. 1.
 —, GREEN, vii. 5.
 CORN-BUNTING, iv. 24.
 CORN-CRAKE, iv. 126.
cornix, *Corvus*, ii. 47.
cornuta, *Tadorna*, vii. 83.
corone, *Corvus*, ii. 46.
Corvus caryocatactes, ii. 62.
 — *corax*, ii. 44.
 — *cornix*, ii. 47.
 — *corone*, ii. 46.
 — *frugilegus*, ii. 49.
 — *monedula*, ii. 54.
Cosmonetta histrionica, vii. 121.
Cotile riparia, ii. 82.
Coturnix communis, iv. 121.
 COURSER, CREAM-COLOURED, v. 19.
 CRAKE, BAILLON'S, iv. 135.
 —, CORN, iv. 126.
 —, LITTLE, iv. 134.
 —, SPOTTED, iv. 130.
 CRANE, BALEARIC, vii. 147.
 —, COMMON, iv. 151.
 —, DEMOISELLE, iv. 153.
 CREAM-COLOURED COURSER, v. 19.
crecca, *Anas*, vii. 94.
 CREEPER, ROCK, ii. 116.
 —, TREE, ii. 114.
 CRESTED LARK, iv. 6.
 — TITMOUSE, ii. 107.
Crex bailloni, iv. 135.
 — *porzana*, iv. 139.
 — *pratensis*, iv. 126.
 — *pusilla*, iv. 134.
eristata, *Alauda*, iv. 6.
 —, *Fuligula*, vii. 113.
eristatus, *Parus*, ii. 107.
 —, *Podiceps*, vi. 109.
 —, *Regulus*, iii. 74.
Crithagra chrysopyga, vii. 146.
 CROSSBILL, iv. 75.
 —, TWO-BARRED, iv. 80.
 CROW, CARRION, ii. 46.
 —, GREY or HOODED, ii. 47.
cryptoleucura, *Procellaria*, vi. 130.
 CUCKOO, ii. 21.
 —, AMERICAN YELLOW-BILLED, ii. 28.
 —, BLACK-BILLED, vii. 145.
 —, GREAT SPOTTED, ii. 23.
Cuculus canorus, ii. 21.
cucullatus, *Mergus*, vii. 144.
 CUNEATE-TAILED GULL, vi. 33.
 CURLEW, v. 131.
 —, ESKIMO, v. 137.
 —, SANDPIPER, v. 91.
 —, STONE, v. 11.
curonica, *Ægialitis*, v. 33.
curruca, *Sylvia*, iii. 52.
Cursorius gallicus, v. 19.
curvirostra, *Loxia*, iv. 75.
Cyanecula leucocyana, iii. 12.
 — *suecica*, iii. 10.
cyaneus, *Circus*, i. 69.
Cyanospiza ciris, vii. 146.
cyaneus, *Monticola*, vii. 146.
cygnoides, *Anser*, vii. 147.
Cygnus americanus, vii. 147.
 — *bewicki*, vii. 79.
 — *buccinator*, vii. 147.
 — *musicus*, vii. 75.
 — *olor*, vii. 74.
Cypselus apus, ii. 33.
 — *melba*, ii. 40.
 DABCHICK, vi. 119.
Daption capense, vii. 147.
 DARTFORD WARBLER, iii. 48.
Dautias lusciniæ, iii. 8.
 DEMOISELLE CRANE, iv. 153.
Dendrocopus medius, vii. 145.
 — *pubescens*, vii. 145.
 — *villosus*, vii. 145.
 DESERT WHEATEAR, iii. 28.
deserti, *Saxicola*, iii. 28.

- desertorum, Buteo*, vii. 145.
Diomedea melanophrys, vii. 147.
 DIPPER, iii. 99.
 —, BLACK-BELLIED, iii. 102.
discors, Anas, vii. 100.
 DIVER, BLACK-THROATED, vi. 104.
 —, GREAT NORTHERN, vi. 97.
 —, RED-THROATED, vi. 105.
 —, WHITE-BILLED GREAT NORTH-
 ERN, vi. 102.
domesticus, Passer, iv. 42.
 DOTTEREL, v. 26.
dougalli, Sterna, vi. 15.
 DOVE, RING, iv. 81.
 —, ROCK, iv. 89.
 —, STOCK, iv. 85.
 —, TURTLE, iv. 93.
 DOWNY WOODPECKER, vii. 145.
 DRAKE, SHELD, vii. 83.
 DUCK, HARLEQUIN, vii. 121.
 —, LESSER SCAUP, vii. 147.
 —, LONG-TAILED, vii. 119.
 —, MUSCOVY, vii. 147.
 —, RING-NECKED, vii. 147.
 —, RUDDY SHELD, vii. 81.
 —, SUMMER, vii. 147.
 —, TUFTED, vii. 113.
 —, WILD OF MALLARD, vii. 86.
 DUNLIN, v. 81.
 DUSKY BULBUL, vii. 146.
 — REDSHANK, v. 118.
 — SHEARWATER, vi. 141.
 EAGLE, GOLDEN, i. 2.
 —, SPOTTED, i. 3.
 —, WHITE-TAILED OF SEA, i. 8.
 EAGLE-OWL, i. 97.
 EARED GREBE, vi. 117.
 EASTERN TURTLE-DOVE, vii. 146.
eburnea, Pagophila, vi. 68.
Ectopistes migratoria, vii. 146.
 EGRET, LITTLE, vii. 19.
 EGYPTIAN GOOSE, vii. 147.
 — NIGHTJAR, ii. 36.
 — VULTURE, i. 83.
 EIDER, COMMON, vii. 123.
 —, KING, vii. 125.
 —, STELLER'S, vii. 127.
Elanoides furcatus, vii. 145.
Elanus cæruleus, vii. 145.
elegans, Carduelis, iv. 53.
Emberiza cioides, iv. 32.
 — *cirlus*, iv. 28.
 — *citrinella*, iv. 26.
 — *hortulana*, iv. 30.
 — *lapponica*, iv. 16.
 — *melanocephala*, iv. 34.
 — *miliaria*, iv. 24.
 — *pusilla*, iv. 22.
 — *rustica*, iv. 20.
 — *schoeniclus*, iv. 18.
enucleator, Pyrrhula, iv. 73.
epops, Upupa, ii. 20.
Erithacus rubecula, iii. 6.
erythrina, Pyrrhula, iv. 72.
erythrophthalmus, Coccyzus, vii. 145.
 ESKIMO CURLEW, v. 137.
Eudromias morinellus, v. 26.
europæus, Caprimulgus, ii. 29.
 EUROPEAN THREE-TOED WOODPECKER,
 vii. 145.
excubitor, Lanius, ii. 70.
excubitorides, Lanius, vii. 146.
falcinellus, Plegadis, vii. 47.
Falco æsalon, i. 50.
 — *candicans*, i. 36.
 — *cenchris*, i. 55.
 — *gyrfalco*, i. 29.
 — *islandus*, i. 31.
 — *peregrinus*, i. 40.
 — *subbuteo*, i. 44.
 — *tinnunculus*, i. 53.
 — *vespertinus*, i. 45.
 FALCON, GREENLAND, i. 33.
 —, GYR, i. 29.
 —, ICELAND, i. 31.
 —, PEREGRINE, i. 40.
 —, RED-FOOTED, i. 45.
familiaris, Certhia, ii. 114.

- ferina*, *Fulgula*, vii. 107.
 FERN-OWL, ii. 29.
ferrugineus, *Scolecophagus*, vii. 145.
 FIELDFARE, iii. 86.
 FINCH, CITRIL, vii. 146.
 —, NONPAREIL, vii. 146.
 FIRE-CREST, iii. 76.
 FLAMINGO, vii. 54.
flammea, *Strix*, i. 109.
flava, *Motacilla*, iii. 110.
flavipes, *Totanus*, v. 116.
flavirostris, *Fringilla*, iv. 66.
fluvialis, *Sterna*, vi. 17.
 FLYCATCHER, ii. 83.
 —, PIED, ii. 89.
 —, RED-BREASTED, ii. 88.
 —, RED-EYED, vii. 146.
 —, SPOTTED, ii. 83.
 —, WHITE-COLLARED, vii. 146.
 FORK-TAILED PETREL, vi. 127.
Pratercula arctica, vi. 96.
Fringilla cælebs, iv. 36.
 — *chloris*, iv. 50.
 — *flavirostris*, iv. 66.
 — *linaria*, iv. 57.
 — *montifringilla*, iv. 37.
 — *rufescens*, iv. 62.
 — *serinus*, iv. 52.
 — *spinus*, iv. 55.
frugilegus, *Corvus*, ii. 49.
Fulica atra, iv. 147.
fulicarius, *Phalaropus*, v. 53.
fuliginosa, *Sterna*, vi. 26.
Fuligula affinis, vii. 147.
 — *clangula*, vii. 115.
 — *collaris*, vii. 147.
 — *cristata*, vii. 113.
 — *ferina*, vii. 107.
 — *marila*, vii. 112.
 — *nyroca*, vii. 109.
 — *rufina*, vii. 106.
 FULMAR, vi. 150.
Fulmarus glacialis, vi. 150.
fulvus, *Charadrius*, vii. 147.
 —, *Gyps*, i. 77.
funerea, *Surnia*, i. 103, vii. 145.
furcatus, *Elanoides*, vii. 145.
fusca, *Edemia*, vii. 133.
fuscicollis, *Tringa*, v. 80.
fuscus, *Larus*, vi. 55.
 —, *Totanus*, v. 118.
 GADWALL, vii. 87.
galactodes, *Aedon*, iii. 30.
galbula, *Oriolus*, iii. 98.
gallicus, *Cursorius*, v. 19.
gallinago, *Scelopax*, v. 63.
Gallinago wilsoni, vii. 147.
Gallinula chloropax, iv. 141.
gallinula, *Scelopax*, v. 67.
 GALLINULE, GREEN-BACKED, vii. 147.
 —, MARTINIQUE, vii. 147.
 —, PURPLE, iv. 146.
gambensis, *Plectropterus*, vii. 147.
 GANNET, vii. 9.
 GARDEN WARBLER, iii. 54.
 GARGANEY, vii. 98.
garrulus, *Ampelis*, ii. 92.
 —, *Coracias*, ii. 17.
Garrulus glandarius, ii. 60.
garzetta, *Ardea*, vii. 19.
Gecinus viridis, ii. 2.
giu, *Scops*, i. 100.
glacialis, *Colymbus*, vi. 97.
 —, *Fulmarus*, vi. 150.
 —, *Harelda*, vii. 119.
glandarius, *Garrulus*, ii. 60.
 —, *Oxylophus*, ii. 23.
Glareola pratincola, v. 15.
glareola, *Totanus*, v. 109.
 GLAUCOUS GULL, vi. 59.
glaucus, *Larus*, vi. 59.
 GLOSSY IBIS, vii. 47.
glottis, *Totanus*, v. 119.
 GOATSUCKER, ii. 29.
 GODWIT, BAR-TAILED, v. 129.
 —, BLACK-TAILED, v. 125.
 GOLDCREST, iii. 74.
 GOLDEN EAGLE, i. 2.

- GOLDEN-EYE, vii. 115.
 —, BARROW'S, vii. 147.
 —, BUFFLE-HEADED, vii. 117.
 GOLDEN ORIOLE, iii. 98.
 — PLOVER, v. 39.
 GOLDEN-WINGED WOODPECKER, vii. 145.
 GOLDFINCH, iv. 53.
 GOLD-VENTED THRUSH, vii. 146.
 GOOSANDER, vii. 137.
 GOOSE, BAR-HEADED, vii. 147.
 —, BARNACLE, vii. 69.
 —, BEAN, vii. 61.
 —, BRENT, vii. 71.
 —, CANADA, vii. 147.
 —, CHINESE, vii. 147.
 —, EGYPTIAN, vii. 147.
 —, GREY LAG, vii. 55.
 —, PINK-FOOTED, vii. 63.
 —, RED-BREASTED, vii. 67.
 —, SNOW, vii. 66.
 —, SPUR-WINGED, vii. 147.
 —, WHITE-FRONTED, vii. 60.
 GOS-HAWK, i. 59.
 —, AMERICAN, vii. 145.
 GRACKLE, RUSTY, vii. 145.
graculus, *Phalacrocorax*, vii. 5.
 —, *Pyrrhocorax*, ii. 56.
 GRASSHOPPER WARBLER, iii. 44.
 GREAT AUK, vi. 81.
 — BLACK-BACKED GULL, vi. 57.
 — BLACK-HEADED GULL, vi. 48.
 — BLACK WOODPECKER, vii. 145.
 — BUSTARD, v. 1.
 — CRESTED GREBE, vi. 109.
 — GREY SHRIKE, ii. 70.
 — NORTHERN DIVER, vi. 97.
 — REED-WARBLER, iii. 34.
 — SHEARWATER, vi. 136.
 — SKUA, vi. 69.
 — SNIPE, v. 59.
 — SPOTTED CUCKOO, ii. 23.
 — TIT, ii. 97.
 — WHITE HERON, vii. 15.
 GREBE, EARED, vi. 117.
 —, GREAT CRESTED, vi. 109.
 —, LESSER CRESTED, HORNED, or
 SCLAVONIAN, vi. 115.
 —, LITTLE, vi. 119.
 —, PIED-BILLED, vii. 147.
 —, RED-NECKED, vi. 114.
 GREEN-BACKED GALLINULE, vii. 147.
 GREEN CORMORANT, vii. 5.
 GREENFINCH, iv. 50.
 GREEN HERON, vii. 30.
 GREENISH WILLOW-WARBLER, iii. 66.
 GREENLAND FALCON, i. 36.
 GREEN SANDPIPER, v. 105.
 GREENSHANK, v. 119.
 GREEN WOODPECKER, ii. 2.
gregarius, *Vanellus*, v. 24.
 GREY-BACKED WAGTAIL, iii. 106.
 GREY CROW, ii. 47.
 GREY-HEADED WAGTAIL, iii. 112.
 GREY LAG GOOSE, vii. 55.
 — PHALAROPE, v. 53.
 — PLOVER, v. 41.
 — WAGTAIL, iii. 108.
 GRIFFON VULTURE, i. 77.
griseigena, *Podiceps*, vi. 114.
griseus, *Macrorhamphus*, v. 71.
 —, *Nycticorax*, vii. 32.
 —, *Puffinus*, vi. 138.
grisola, *Muscicapa*, ii. 83.
 GROSBEEK, PINE, iv. 73.
 —, SCARLET, iv. 72.
 GROUSE, BLACK, iv. 106.
 —, PALLAS'S SAND, iv. 97.
 —, RED, iv. 107.
Grus communis, iv. 151.
 — *virgo*, iv. 153.
grylle, *Uria*, vi. 91.
 GUILLEMOT, BLACK, vi. 91.
 —, BRÜNNICH'S, vi. 87.
 —, COMMON, vi. 83.
 GULL-BILLED TERN, vi. 9.
 GULL, BLACK-HEADED, vi. 39.
 —, BONAPARTE'S, vi. 35.
 —, COMMON, vi. 49.
 —, CUNEATE-TAILED, vi. 33, 34.

- GULL, GLAUCCOUS, vi. 59.
 —, GREAT BLACK-BACKED, vi. 57.
 —, — BLACK-HEADED, vi. 48.
 —, HERRING, vi. 51.
 —, ICELAND, vi. 62.
 —, IVORY, vi. 68.
 —, LAUGHING, vii. 147.
 —, LESSER BLACK-BACKED, vi. 55.
 —, LITTLE, vi. 37.
 —, MEDITERRANEAN BLACK-HEADED,
 vi. 43.
 —, — HERRING, vii. 147.
 —, SABINE'S, vi. 32.
Gyps fulvus, i. 77.
gyrfalco, *Falco*, i. 29.
 GYR FALCON, i. 29.
- Hæmatopus ostralegus*, v. 47.
hesitata, *Œstrelata*, vi. 148.
 HAIRY WOODPECKER, vii. 145.
haliaetus, *Aquila*, i. 8.
 —, *Pandion*, i. 11.
 HAMMER, YELLOW, iv. 26.
Harelda glacialis, vii. 119.
 HARLEQUIN DUCK, vii. 121.
 HARRIER, HEN, i. 69.
 —, MARSH, i. 67.
 —, MONTAGU'S, i. 73.
 HAWFINCH, iv. 46.
 HAWK, AMERICAN GOS, vii. 145.
 —, GOS, i. 59.
 —, OWL, i. 103.
 —, SPARROW, i. 66.
 HEDGE-SPARROW, iii. 4.
 HEMIPODE, ANDALUSIAN, vii. 146.
 HEN-HARRIER, i. 69.
 HEN, WATER OF MOOR, iv. 141.
 HERON, BUFF-BACKED, vii. 23.
 —, COMMON, vii. 12.
 —, GREAT WHITE, vii. 15.
 —, GREEN, vii. 30.
 —, NIGHT, vii. 32.
 —, PURPLE, vii. 13.
 —, SQUACCO, vii. 25.
 HERRING-GULL, vi. 51.
- hiaticula*, *Ægialitis*, v. 29.
Himantopus melanopterus, v. 51.
Hirundo bicolor, vii. 146.
 — *rufula*, vii. 146.
 — *rustica*, ii. 78.
 — *savignii*, vii. 146.
histrionica, *Cosmonetta*, vii. 121.
 HOBBY, i. 44.
 HONEY-BUZZARD, i. 21.
 HOODED CROW, ii. 47.
 — Merganser, vii. 144.
 HOOPOE, ii. 20.
 HORNED GREBE, vi. 115.
hornemanni, *Linota*, iv. 59.
hortensis, *Sylvia*, iii. 54.
hortulana, *Emberiza*, iv. 30.
hybrida, *Hydrochelidon*, vi. 5.
Hydrochelidon hybrida, vi. 5.
 — *leucoptera*, vi. 3.
 — *nigra*, vi. 1.
hyperboreus, *Chen*, vii. 66.
 —, *Phalaropus*, v. 56.
Hypolais icterina, iii. 32.
 — *polyglotta*, vii. 146.
hypoleucus, *Totanus*, v. 103.
- IBIS, GLOSSY, vii. 47.
 ICELAND FALCON, i. 31.
 — GULL, vi. 62.
ichthyaetus, *Larus*, vi. 48.
icterina, *Hypolais*, iii. 32.
 ICTERINE WARBLER, iii. 32.
ignicapillus, *Regulus*, iii. 76.
iliacus, *Turdus*, iii. 84.
impennis, *Alca*, vi. 81.
 INDIAN HOUBARA BUSTARD, v. 10.
 — ROLLER, vii. 145.
indicus, *Anser*, vii. 147.
 —, *Coracias*, vii. 145.
interpres, *Streptilas*, v. 46.
isabellina, *Saxicola*, iii. 24.
 ISABELLINE NIGHTJAR, ii. 36.
 — WHEATEAR, iii. 24.
islandica, *Clangula*, vii. 147.
islandus, *Falco*, i. 31.

- ispida*, *Alcedo*, ii. 14.
 IVORY GULL, vi. 68.
Lynx torquilla, ii. 12.

 JACKDAW, ii. 54.
 JACK SNIBE, v. 67.
 JAY, ii. 60.

 KENTISH PLOVER, v. 35.
 KESTREL, i. 53.
 —, LESSER, i. 55.
 KILLDEER PLOVER, v. 37.
 KING EIDER, vii. 125.
 KINGFISHER, BELTED, vii. 145.
 —, COMMON, ii. 14.
 KITE, i. 25.
 —, BLACK, i. 27.
 —, BLACK-WINGED, vii. 145.
 —, SWALLOW-TAILED, vii. 145.
 KITTIWAKE, vi. 63.
 KNOT, v. 95.

lagopus, *Buteo*, i. 19.
Lagopus mutus, iv. 112.
 — *rupestris*, vii. 143.
 — *scoticus*, iv. 107.
 LAND-RAIL, iv. 126.
Lanius collurio, ii. 74.
 — *excubitor*, ii. 70.
 — *excubitorides*, vii. 146.
 — *major*, vii. 146.
 — *minor*, ii. 71.
 — *rutilus*, ii. 75.
 LAPLAND BUNTING, iv. 16.
lapponica, *Emberiza*, iv. 16.
 —, *Limosa*, v. 129.
 LAPWING, v. 43.
 —, SOCIABLE, v. 24.
 LARK, CALANDRA, vii. 146.
 —, CRESTED, iv. 6.
 —, SHORE, iv. 1.
 —, SHORT-TOED, iv. 9.
 —, SKY, iv. 3.
 —, WHITE-WINGED, iv. 12.
 —, WOOD, iv. 8.

Larus argentatus, vi. 51.
 — *atricilla*, vii. 147.
 — *cachinnans*, vii. 147.
 — *canus*, vi. 49.
 — *fuscus*, vi. 55.
 — *glaucus*, vi. 59, 60.
 — *ichthyaetus*, vi. 48.
 — *leucopterus*, vi. 62.
 — *marinus*, vi. 57.
 — *melanocephalus*, vi. 43.
 — *minutus*, vi. 37.
 — *philadelphia*, vi. 35.
 — *ridibundus*, vi. 39.
 — *roseus*, vi. 33, 34.
 — *sabini*, vi. 32.
 LAUGHING GULL, vii. 147.
lentiginosus, *Botaurus*, vii. 39.
 LESSER BLACK-BACKED GULL, vi. 55.
 — CRESTED GREBE, vi. 115.
 — GREY SHRIKE, ii. 71.
 — KESTREL, i. 55.
 — REDPOLL, iv. 62.
 — SCAUP DUCK, vii. 147.
 — SOOTY TERN, vi. 28.
 — SPOTTED WOODPECKER, ii. 10.
 — WHITETHROAT, iii. 52.
Lestrnis calarrhactes, vi. 69.
 — *parasiticus*, vi. 77.
 — *pomatorhinus*, vi. 74.
 — *richardsoni*, vi. 75.
leucocyana, *Cyanecula*, iii. 12.
leucopsis, *Anser*, vii. 69.
leucoptera, *Hydrochelidon*, vi. 3.
 —, *Melanocorypha*, iv. 12.
leucopterus, *Larus*, vi. 62.
leucorodia, *Platalea*, vii. 51.
leucorrhoea, *Procellaria*, vi. 127.
 LEVANTINE SHEARWATER, vii. 147.
Limicola platyrhyncha, v. 74.
Limosa ægocephala, v. 125.
 — *lapponica*, v. 129.
linaria, *Fringilla*, iv. 57.
lineatus, *Buteo*, vii. 145.
 LINNET, COMMON OR BROWN, iv. 64.
 —, MOUNTAIN, iv. 66.

- Linota cannabina*, iv. 64.
 — *hornemanni*, iv. 59.
 LITTLE AUK, vi. 94.
 — BITTERN, vii. 33.
 — BUNTING, iv. 22.
 — BUSTARD, v. 5.
 — CRAKE, iv. 134.
 — EGRET, vi. 19.
 — GREBE, vi. 119.
 — GULL, vi. 37.
 — OWL, i. 102.
 — RINGED PLOVER, v. 33.
 — STINT, v. 86.
 — TERN, vi. 21.
livia, *Columba*, iv. 89.
Locustella naevia, iii. 44.
 LONG-EARED OWL, i. 91.
longicauda, *Bartramia*, v. 101.
 LONG-LEGGED PETREL, vi. 131.
 LONG-TAILED DUCK, vii. 119.
 ——— SKUA, vi. 77.
 ——— TITMOUSE, ii. 110.
Loxia bifasciata, iv. 80.
 — *curvirostra*, iv. 75.
ludovicianus, *Anthus*, vii. 146.
lugubris, *Motacilla*, iii. 104.
luscini, *Daulias*, iii. 8.
luscinioides, *Acrocephalus*, iii. 46.

Machetes pugnax, v. 122.
macqueeni, *Otis*, v. 10.
Macrorhamphus griseus, v. 71.
macrura, *Sterna*, vi. 20.
macularius, *Totanus*, vii. 147.
maculata, *Tringa*, v. 76, 78.
magna, *Sturnella*, vii. 146.
 MAGPIE, ii. 58.
major, *Lanius*, vii. 146.
 —, *Parus*, ii. 97.
 —, *Picus*, ii. 6.
 —, *Puffinus*, vi. 136.
 —, *Pyrrhula*, iv. 70.
 —, *Scolopax*, v. 59.
 MALLARD, vii. 86.

 MANX SHEARWATER, vi. 140.
Mareca americana, vii. 104.
 — *penelope*, vii. 101.
marila, *Fuligula*, vii. 112.
marina, *Pelagodroma*, vi. 134.
marinus, *Larus*, vi. 57.
 MARSH-HARRIER, i. 67.
 — — — — — TITMOUSE, ii. 106.
 — — — — — WARBLER, iii. 38.
 MARTIN, ii. 80.
 —, PURPLE, vii. 146.
 —, SAND, ii. 82.
martinicus, *Porphyrus*, vii. 147.
 MARTINIQUE GALLINULE, vii. 147.
martius, *Picus*, vii. 145.
maximus, *Bubo*, i. 97.
 MEADOW-PIPET, iii. 118.
 MEALY REDPOLL, iv. 57, 59.
 MEDITERRANEAN BLACK-HEADED
 GULL, vi. 43.
 — HERRING-GULL, vii. 147.
medius, *Dendrocopus*, vii. 145.
melanocephala, *Emberiza*, iv. 34.
melanocephalus, *Larus*, vi. 43.
Melanocorypha calandria, vii. 146.
 — *leucoptera*, iv. 12.
melanogaster, *Cinclus*, iii. 102.
melanophrys, *Diomedea*, vii. 147.
melanopterus, *Himantopus*, v. 51.
melba, *Cypselus*, ii. 40.
Melizophilus provincialis, iii. 48.
 MELODIOUS WARBLER, vii. 146.
 MERGANSER, COMMON OR RED-
 BREASTED, vii. 139.
 —, HOODED, vii. 144.
merganser, *Mergus*, vii. 137.
Mergulus alle, vi. 94.
Mergus albellus, vii. 141.
 — *cucullatus*, vii. 144.
 — *merganser*, vii. 137.
 — *serrator*, vii. 139.
 MERLIN, i. 50.
Merops apiaster, ii. 16.
 — *philippensis*, vii. 145.
merula, *Turdus*, iii. 92.

- MIDDLE-SPOTTED WOODPECKER, vii. 145.
migrans, *Milvus*, i. 27.
migratoria, *Ectopistes*, vii. 146.
migratorius, *Turdus*, vii. 146.
miliaria, *Emberiza*, iv. 24.
Milvus migrans, i. 27.
— *regalis*, i. 25.
Mimus polyglottus, vii. 146.
minor, *Lanius*, ii. 71.
—, *Phylloscopus*, iii. 63.
—, *Picus*, ii. 10.
—, *Podiceps*, vi. 119.
minuta, *Ardetta*, vii. 33.
—, *Sterna*, vi. 21.
—, *Tringa*, v. 86.
minutilla, *Tringa*, v. 90.
minutus, *Larus*, vi. 37.
MISTLETOE-THRUSH, iii. 80.
MOCKING-BIRD, vii. 146.
modularis, *Accentor*, iii. 4.
mollissima, *Somateria*, vii. 123.
monedula, *Corvus*, ii. 54.
MONTAGU'S HARRIER, i. 73.
montanus, *Passer*, iv. 44.
Monticola cyaneus, vii. 146.
— *saxatilis*, iii. 96.
montifringilla, *Fringilla*, iv. 37.
MOOR-HEN, iv. 141.
morinellus, *Eudromias*, v. 26.
moschata, *Cairina*, vii. 147.
Motacilla alba, iii. 106.
— *borealis*, iii. 112.
— *flava*, iii. 110.
— *lugubris*, iii. 104.
— *rayi*, iii. 114.
— *sulphurea*, iii. 108.
MOUNTAIN LINNET, iv. 66.
muraria, *Tichodroma*, ii. 116.
Muscicapa atricapilla, ii. 89.
— *collaris*, vii. 146.
— *grisola*, ii. 83.
— *parva*, ii. 88.
MUSCOVY DUCK, vii. 147.
musicus, *Cygnus*, vii. 75.
musicus, *Turdus*, iii. 82.
MUTE SWAN, vii. 74.
mutus, *Lagopus*, iv. 112.

nævia, *Aquila*, i. 3.
—, *Locustella*, iii. 44.
NEEDLE-TAILED SWIFT, ii. 42.
Neophron percnopterus, i. 83.
NEOPHRON OF EGYPTIAN VULTURE,
i. 83.
NIGHTINGALE, iii. 8.
NIGHT-HERON, vii. 32.
NIGHTJAR, ii. 29.
—, EGYPTIAN OF ISABELLINE, ii.
36.
—, RED-NECKED, ii. 33.
nigra, *Ciconia*, vii. 45.
—, *Hydrochelidon*, vi. 1.
—, *Edemia*, vii. 129.
nigricollis, *Podiceps*, vi. 117.
nisoria, *Sylvia*, iii. 60.
nisus, *Accipiter*, i. 66.
nivalis, *Plectrophanes*, iv. 14.
noctua, *Athene*, i. 102.
NODDY TERN, vi. 29.
NONPAREIL FINCH, vii. 146.
NORTHERN BULLFINCH, iv. 70.
Numenius arquata, v. 131.
— *borealis*, v. 137.
— *phæopus*, v. 135.
NUTCRACKER, ii. 62.
NUTHATCH, ii. 112.
Nyctala acadica, vii. 145.
— *tengmalmi*, i. 89.
Nyctea scandiaca, i. 105.
Nycticorax griseus, vii. 32.
nyroca, *Fuligula*, vii. 109.

obscurus, *Anthus*, iii. 126.
—, *Puffinus*, vi. 141.
oceanicus, *Oceanites*, vi. 131.
Oceanites oceanicus, vi. 131.
ochropus, *Totanus*, v. 105.
Edemia fusca, vii. 133.

- Œdemia nigra*, vii. 129.
 — *perspicillata*, vii. 135.
Œdicnemus scolopax, v. 11.
œnanthe, *Saxicola*, iii. 22.
œnas, *Columba*, iv. 85.
Œstreata brevipennis, vi. 146.
 — *hæsitata*, vi. 148.
olivaceus, *Vireo*, vii. 146.
olor, *Cygnus*, vii. 74.
onocrotalus, *Pelecanus*, vii. 147.
orientalis, *Turtur*, vii. 146.
 ORIOLE, GOLDEN, iii. 98.
Oriolus galbula, iii. 98.
orphea, *Sylvia*, iii. 57.
 ORPHEAN WARBLER, iii. 57.
 ORTOLAN BUNTING, iv. 30.
Oxyx virginianus, vii. 146.
 OSPREY, i. 11.
ostralegus, *Hæmatopus*, v. 47.
Otis macqueeni, v. 10.
 — *tarda*, v. 1.
 — *tetrax*, v. 5.
Otocorys alpestris, iv. 1.
otus, *Asio*, i. 91.
 OUZEL, RING, iii. 94.
 OWL, AMERICAN HAWK, vii. 145.
 —, — SCREECH, vii. 145.
 —, BARN, i. 109.
 —, BROWN, i. 87.
 —, EAGLE, i. 97.
 —, FERN, ii. 29.
 —, HAWK, i. 103.
 —, LITTLE, i. 102.
 —, LONG-EARED, i. 91.
 —, SAW-WHET, vii. 145.
 —, SCOPES, i. 100.
 —, SHORT-EARED, i. 95.
 —, SNOWY, i. 105.
 —, TAWNY, i. 87.
 —, TENGMALM'S, i. 89.
 —, WOOD, i. 87.
Orylophus glandarius, ii. 23.
 OYSTER-CATCHER, v. 47.
Pagophila eburnea, vi. 63.
 PALLAS'S GREAT GREY SHRIKE, vii.
 146.
 — SAND-GROUSE, iv. 97.
 — WILLOW-WARBLER, iii. 72.
palumbarius, *Astur*, i. 59.
palumbus, *Columba*, iv. 81.
palustris, *Acrocephalus*, iii. 33.
 —, *Parus*, ii. 106.
Pandion haliaetus, i. 11.
Panurus biarmicus, ii. 93.
paradoxus, *Syrnhaptus*, iv. 97.
parasiticus, *Lestris*, vi. 77.
 PARTRIDGE, BARBARY, vii. 146.
 —, COMMON OR GREY, iv. 118.
 —, RED-LEGGED, iv. 120.
Parus ater, ii. 104.
 — *britannicus*, ii. 104.
 — *cæruleus*, ii. 102.
 — *cristatus*, ii. 107.
 — *major*, ii. 97.
 — *palustris*, ii. 106.
parva, *Muscicapa*, ii. 88.
parvulus, *Troglodytes*, ii. 120.
 PASSENGER PIGEON, vii. 146.
Passer domesticus, iv. 42.
 — *montanus*, iv. 44.
 PASTOR, ROSE-COLOURED, ii. 68.
Pastor roseus, ii. 68.
pavonina, *Bulearica*, vii. 147.
 PECTORAL SANDPIPER, v. 76, 78.
 PEEWIT, v. 43.
pelagica, *Procellaria*, vi. 123.
Pelagodroma marina, vi. 134.
Pelecanus onocrotalus, vii. 147.
 PELICAN, WHITE, vii. 147.
percnopterus, *Neophron*, i. 83.
Perdix cinerea, iv. 118.
 PEREGRINE FALCON, i. 40.
peregrinus, *Falco*, i. 40.
penelope, *Mareca*, vii. 101.
Pernis apivorus, i. 21.
perspicillata, *Œdemia*, vii. 135.
 PETREL, BULWER'S, vi. 144.
 —, CAPPED, vi. 148.
 —, COLLARED, vi. 146.

- PETREL, FORK-TAILED, vi. 127.
 —, LONG-LEGGED or WILSON'S, vi. 131.
 —, RIDGWAY'S, vi. 130.
 —, STORM, vi. 123.
 —, WHITE-FACED, vi. 134.
petrosa, CACCABIS, vii. 146.
phæopus, NUMENIUS, v. 135.
Phaeton æthereus, vii. 147.
Phalacrocorax carbo, vii. 1.
 — *graculus*, vii. 5.
 PHALAROPE, GREY, v. 53.
 —, RED-NECKED, v. 56.
Phalaropus fulicarius, v. 53.
 — *hyperboreus*, v. 56.
Phasianus colchicus, iv. 114.
 — *torquatus*, iv. 116.
 PHEASANT, iv. 114.
 —, CHINESE RING-NECKED, iv. 116.
philadelphia, *Larus*, vi. 35.
philippensis, *Merops*, vii. 145.
phæniceus, *Agelæus*, vii. 146.
Phænicopterus roseus, vii. 54.
phænicurus, *Ruticilla*, iii. 14.
phragmitis, *Acrocephalus*, iii. 40.
Phylloscopus minor, iii. 68.
 — *proregulus*, iii. 72.
 — *sibilatrix*, iii. 62.
 — *superciliosus*, iii. 70.
 — *trochilus*, iii. 64.
 — *viridanus*, iii. 66.
Pica caudata, ii. 58.
Picoides tridactylus, vii. 145.
Picus major, ii. 6.
 — *martius*, vii. 145.
 — *minor*, ii. 10.
 — *villosus*, vii. 145.
 PIE, SEA, v. 47.
 PIED FLYCATCHER, ii. 89.
 PIED-BILLED GREBE, vii. 147.
 PIED or COMMON WAGTAIL, iii. 104.
 — ROCK-THRUSH, iii. 96.
 — WOODPECKER, ii. 6.
 PIGEON, CAPE, vii. 147.
 PIGEON, PASSENGER, vii. 146.
 —, WOOD, iv. 81.
pilaris, *Turdus*, iii. 86.
 PINE-GROSBEAK, iv. 73.
 PINK-FOOTED GOOSE, vii. 63.
 PINTAIL, vii. 92.
 PIPIT, ALPINE, iii. 121.
 —, AMERICAN, vii. 146.
 —, MEADOW, iii. 118.
 —, RED-THROATED, iii. 120.
 —, RICHARD'S, iii. 130.
 —, ROCK, iii. 126.
 —, TAWNY, iii. 127.
 —, TREE, iii. 115.
Platalea leucorodia, vii. 51.
platyrhyncha, *Limicola*, v. 74.
Plectrophanes nivalis, iv. 14.
Plectropterus gambensis, vii. 147.
Plegadis falcinellus, vii. 47.
 PLOVER, ASIATIC GOLDEN, vii. 147.
 —, BARTRAM'S, v. 101.
 —, CASPIAN, v. 27.
 —, GOLDEN, v. 39.
 —, GREY, v. 41.
 —, KENTISH, v. 35.
 —, KILLDEER, v. 37.
 —, LITTLE RINGED, v. 33.
 —, RINGED, v. 29.
pluvialis, *Charadrius*, v. 39.
 POCHARD, vii. 107.
 —, RED-CRESTED, vii. 106.
 —, WHITE-EYED, vii. 109.
Podiceps auritus, vi. 115.
 — *cristatus*, vi. 109.
 — *griseigena*, vi. 114.
 — *minor*, vi. 116.
 — *nigricollis*, vi. 117.
podiceps, *Podilymbus*, vii. 147.
Podilymbus podiceps, vii. 147.
polyglotta, *Hypolais*, vii. 146.
polyglottus, *Mimus*, vii. 146.
pomatorhinus, *Lestræis*, vi. 74.
Porphyrio cæruleus, iv. 146.
 — *martinicus*, vii. 147.
 — *smaragdonotus*, vii. 147.

- porzana*, *Crex*, iv. 130.
pratensis, *Anthus*, iii. 118.
 —, *Crex*, iv. 126.
pratincta, *Glareola*, v. 15.
Pratincola rubetra, iii. 20.
 — *rubicola*, iii. 18.
 PRATINCOLE, COMMON, v. 15.
Procellaria bulweri, vi. 144.
 — *cryptoleucura*, vi. 130.
 — *leucorrhoa*, vi. 127.
 — *pelagica*, vi. 123.
Progne purpurea, vii. 146.
proregulus, *Phylloscopus*, iii. 72.
provincialis, *Melizophilus*, iii. 48.
 PTARMIGAN, iv. 112.
 —, ROCK, vii. 146.
pubescens, *Dendrocopus*, vii. 145.
 PUFFIN, vi. 96.
Puffinus anglorum, vi. 140.
 — *griseus*, vi. 138.
 — *major*, vi. 136.
 — *obscurus*, vi. 141.
 — *yelkouanus*, vii. 147.
pugnax, *Machetes*, v. 122.
 PURPLE GALLINULE, iv. 146.
 — HERON, vii. 13.
 — MARTIN, vii. 146.
 — SANDPIPER, v. 93.
purpurea, *Ardea*, vii. 13.
 —, *Progne*, vii. 146.
pusilla, *Crex*, iv. 134.
 —, *Emberiza*, iv. 22.
Pycnonotus barbatus, vii. 146.
 — *capensis*, vii. 146.
Pyrrhocorax graculus, ii. 56.
Pyrrhula enucleator, iv. 73.
 — *erythrina*, iv. 72.
 — *major*, iv. 70.
 — *vulgaris*, iv. 68.
 QUAIL, iv. 121.
 RAIL, CAROLINA, vii. 146.
 —, LAND, iv. 126.
 —, WATER, iv. 139.
Rallus aquaticus, iv. 139.
 — *carolinus*, vii. 146.
ralloides, *Ardea*, vii. 25.
 RAVEN, ii. 44.
rayi, *Motacilla*, iii. 114.
 RAZORBILL, vi. 79.
Recurvirostra avocetta, v. 49.
 RED-BACKED SHRIKE, ii. 79.
 RED-BILLED CHOUGH, ii. 56.
 RED-BREASTED FLYCATCHER, ii. 88.
 — - - - GOOSE, vii. 67.
 — - - - MERGANSER, vii. 139.
 — - - - SNIPE, v. 71.
 RED-CRESTED POCHARD, vii. 106.
 RED-EYED FLYCATCHER, vii. 146.
 RED-FOOTED FALCON, i. 45.
 RED GROUSE, iv. 107.
 RED-LEGGED PARTRIDGE, iv. 120.
 RED-NECKED GREBE, vi. 114.
 — - - - NIGHTJAR, ii. 33.
 — - - - PHALAROPE, v. 56.
 REDPOLL, LESSER, iv. 62.
 —, MEALY, iv. 57, 59.
 RED-RUMPED SWALLOW, vii. 146.
 REDSHANK, COMMON, v. 113.
 —, DUSKY, v. 118.
 RED-SHOULDERED BUZZARD, vii. 145.
 REDSTART, iii. 14.
 —, BLACK, iii. 16.
 RED-TAILED BUZZARD, vii. 145.
 RED-THROATED DIVER, vi. 105.
 — - - - PIPIT, iii. 120.
 REDWING, iii. 84.
 RED-WINGED STARLING, vii. 146.
 REED-BUNTING, iv. 18.
 REEDLING, BEARDED, ii. 93.
 REED-WARBLER, iii. 36.
regalis, *Milvus*, i. 25.
Regulus calendula, vii. 146.
 — *cristatus*, iii. 74.
 — *ignicapillus*, iii. 76.
richardi, *Anthus*, iii. 130.
richardsoni, *Lestris*, vi. 75.
 RICHARD'S PIPIT, iii. 130.
 RICHARDSON'S SKUA, vi. 75.

- RIDGWAY'S PETREL, vi. 130.
ridibundus, *Larus*, vi. 39.
 RING-DOVE, iv. 81.
 RINGED PLOVER, v. 29.
 RING-NECKED DUCK, vii. 147.
 RING-OUZEL, iii. 94.
riparia, *Cotile*, ii. 82.
Rissa tridactyla, vi. 63.
 ROBIN, iii. 6.
 —, AMERICAN, vii. 146.
 ROCK-CREEPER, ii. 116.
 —-DOVE, iv. 89.
 —-PIPIT, iii. 126.
 —-PTARMIGAN, vii. 146.
 ROLLER, ii. 17.
 —, ABYSSINIAN, vii. 145.
 —, INDIAN, vii. 145.
 ROOK, ii. 49.
rosea, *Acredula*, ii. 110.
 ROSEATE TERN, vi. 15.
 ROSE-COLOURED PASTOR, ii. 68.
roseus, *Larus*, vi. 33, 34.
 —, *Pastor*, ii. 68.
 —, *Phenicopterus*, vii. 54.
 ROUGH-LEGGED BUZZARD, i. 19.
rubecula, *Erethacus*, iii. 6.
rubetra, *Pratincola*, iii. 20.
rubicola, *Pratincola*, iii. 18.
 RUBY-CROWNED WREN, vii. 146.
 RUDDY SHELD-DUCK, vii. 81.
rufa, *Cucubis*, iv. 120.
rufescens, *Fringilla*, iv. 62.
 —, *Tringa*, v. 99.
 RUFF, v. 122.
ruficollis, *Bernicla*, vii. 67.
 —, *Caprimulgus*, ii. 33.
rufina, *Fuligula*, vii. 106.
 RUFOUS WARBLER, iii. 30.
rufula, *Hirundo*, vii. 146.
rupestris, *Lagopus*, vii. 146.
 RÜPPELL'S TERN, vii. 147.
rustica, *Emberiza*, iv. 20.
 —, *Hirundo*, ii. 78.
 RUSTIC BUNTING, iv. 20.
rusticula, *Scolopax*, v. 58.
 RUSTY GRACKLE, vii. 145.
Ruticilla phœnicurus, iii. 14.
 — *titys*, iii. 16.
rutilus, *Lanius*, ii. 75.
 SABINE'S GULL, vi. 32.
sabini, *Larus*, vi. 32.
 —, *Scolopax*, v. 64.
sancti-johannis, *Archibuteo*, vii. 145.
 SANDERLING, v. 97.
 SAND-GROUSE, PALLAS'S, iv. 97.
 SAND-MARTIN, ii. 82.
 SANDPIPER, BONAPARTE'S, v. 80.
 —, BROAD-BILLED, v. 74.
 —, BUFF-BREASTED, v. 99.
 —, COMMON, v. 103.
 —, CURLEW, v. 91.
 —, GREEN, v. 105.
 —, PECTORAL, v. 76, 78.
 —, PURPLE, v. 93.
 —, SHARP-TAILED, vii. 147.
 —, SOLITARY, v. 111.
 —, SPOTTED, vii. 147.
 —, WOOD, v. 109.
 —, YELLOW-SHANKED, v. 116.
 SANDWICH TERN, vi. 13.
savignii, *Hirundo*, vii. 146.
 SAVI'S WARBLER, iii. 46.
 SAW-WHET OWL, vii. 145.
saxatilis, *Monticola*, iii. 96.
Saxicola deserti, iii. 28.
 — *isabellina*, iii. 24.
 — *œnanthe*, iii. 22.
 — *stapanina*, iii. 26.
scandiaca, *Nyctea*, i. 105.
 SCARLET GROSBEAK, iv. 72.
 SCAUP, vi. 112.
schaenichus, *Emberiza*, iv. 18.
 SCLAVONIAN GREBE, vi. 115.
Scolecophagus ferrugineus, vii. 145.
Scolopax gallinago, v. 63.
 — *gallinula*, v. 67.
 — *major*, v. 59.
 — *rusticula*, v. 58.
 — *sabini*, v. 64.
scolopax, *Edicnemus*, v. 11.

- Scops asio*, vii. 145.
 — *gju*, i. 100.
 SCOPS OWL, i. 100.
 SCOTER, COMMON, vii. 129.
 —, SURF, vii. 135.
 —, VELVET, vii. 133.
scoticus, *Lagopus*, iv. 107.
 SCREECH-OWL, AMERICAN, vii. 145.
 SEA-PIE, v. 47.
 SEDGE-WARBLER, iii. 40.
 SEED-EATER, YELLOW-RUMPED, vii. 146.
segetum, *Anser*, vii. 61.
septentrionalis, *Colymbus*, vi. 105.
sericea, *Cettia*, vii. 146.
 SERIN, iv. 52.
Serinus canarius, vii. 146.
serinus, *Fringilla*, iv. 52.
serrator, *Mergus*, vii. 139.
 SHAG, vii. 5.
 SHARP-TAILED SANDPIPER, vii. 147.
 SHEARWATER, DUSKY, vi. 141.
 —, GREAT, vi. 136.
 —, LEVANTINE, vii. 147.
 —, MANX, vi. 140.
 —, SOOTY, vi. 138.
 SHEATH-BILL, WHITE, vii. 147.
 SHELD-DRAKE, vii. 83.
 SHELD-DUCK, RUDDY, vii. 81.
 SHORE-LARK, iv. 1.
 SHORT-EARED OWL, i. 95.
 SHORT-TOED LARK, iv. 9.
 SHOVELLER, vii. 90.
 SHRIKE, AMERICAN GREY, vii. 146.
 —, GREAT GREY, ii. 70.
 —, LESSEB GREY, ii. 71.
 —, PALLAS'S GREAT GREY, vii. 146.
 —, RED-BACKED, ii. 74.
 SIBERIAN GROUND-THRUSH, iii. 89.
sibilatrix, *Phylloscopus*, iii. 62.
sibiricus, *Turdus*, iii. 89.
 SISKIN, iv. 55.
Sitta cæsia, ii. 112.
 SKUA, GREAT, vi. 69.
 —, LONG-TAILED OF BUFFON'S, vi. 77.
 SKUA, RICHARDSON'S, vi. 75.
 —, TWIST-TAILED, vi. 74.
 SKY-LARK, iv. 3.
smaragdonotus, *Porphyrus*, vii. 147.
 SMEW, vii. 141.
 SNIPE, COMMON, v. 63.
 —, GREAT OF SOLITARY, v. 59.
 —, JACK, v. 67.
 —, RED-BREADED, v. 71.
 —, WILSON'S, vii. 147.
 SNOW-BUNTING, v. 14.
 SNOW-GOOSE, vii. 66.
 SNOWY OWL, i. 105.
 SOCIABLE LAPWING, v. 24.
solitarius, *Totanus*, v. 111.
 SOLITARY SANDPIPER, v. 111.
 — SNIPE, v. 59.
Somateria mollissima, vii. 123.
 — *spectabilis*, vii. 125.
 — *stelleri*, vii. 127.
 SONG-THRUSH, iii. 82.
 SOOTY SHEARWATER, vi. 138.
 — TERN, vi. 26.
 SPARROW, COMMON OF HOUSE, iv. 42.
 SPARROW-HAWK, i. 66.
 SPARROW, HEDGE, iii. 4.
 —, TREE, iv. 44.
 —, WHITE-THROATED, vii. 146.
spectabilis, *Somateria*, vii. 125.
spinus, *Fringilla*, iv. 55.
spipoletta, *Anthus*, iii. 121.
sponsa, *Æv*, vii. 147.
 SPOONBILL, vii. 51.
 SPOTTED CRAKE, iv. 130.
 — CUCKOO, GREAT, ii. 23.
 — EAGLE, i. 3.
 — FLYCATCHER, ii. 83.
 — SANDPIPER, vii. 147.
 SPUR-WINGED GOOSE, vii. 147.
 SQUACCO HERON, vii. 25.
Squatarola cinerea, v. 41.
stapazina, *Saxicola*, iii. 26.
 STARLING, ii. 63.
 —, AMERICAN MEADOW, vii. 146.
 —, RED-WINGED, vii. 146.

- stellaris*, *Botaurus*, vii. 38.
 STELLER'S EIDER, vii. 127.
stelleri, *Somateria*, vii. 127.
Sterna anæsthera, vi. 28.
 — *anglica*, vi. 9.
 — *bergi*, vii. 147.
 — *cantiaca*, vi. 13.
 — *caspia*, vi. 11.
 — *dougalli*, vi. 15.
 — *fluvialis*, vi. 17.
 — *fuliginosa*, vi. 26.
 — *macrura*, vi. 20.
 — *minuta*, vi. 21.
 STILT, BLACK-WINGED, v. 51.
 STINT, AMERICAN, v. 90.
 —, LITTLE, v. 86.
 —, TEMMINCK'S, v. 87.
 STOCK-DOVE, iv. 85.
stolidus, *Anous*, vi. 29.
 STONECHAT, iii. 18.
 STONE-CURLEW, v. 11.
 STORK, BLACK, vii. 45.
 —, WHITE, vii. 41.
 STORM-PETREL, vi. 123.
strepera, *Anas*, vii. 87.
streperus, *Acrocephalus*, iii. 36.
Strepsilas intrepres, v. 46.
striata, *Tringa*, v. 93.
Strix flammea, i. 109.
Sturnella magna, vii. 146.
Sturnus vulgaris, ii. 63.
subalpina, *Sylvia*, vii. 146.
 SUBALPINE WARBLER, vii. 146.
subarquata, *Tringa*, v. 91.
subuteo, *Falco*, i. 44.
suecica, *Cyanecula*, iii. 10.
Sula bassana, vii. 9.
sulphurea, *Motacilla*, iii. 108.
 SUMMER DUCK, vii. 147.
 — TEAL, vii. 98.
superciliosus, *Phylloscopus*, iii. 70.
 SURF-SCOTER, vii. 135.
Surnia funerea, i. 103; vii. 145.
 SWALLOW, ii. 78.
 — CHESTNUT-BELLIED, vii. 146.
 SWALLOW, RED-RUMPED, vii. 146.
 —, WHITE-BELLIED, vii. 146.
 SWALLOW-TAILED KITE, vii. 145.
 SWAN, AMERICAN, vii. 147.
 —, BEWICK'S, vii. 79.
 —, COMMON WILD, vii. 75.
 —, MUTE, vii. 74.
 —, TRUMPETER, vii. 147.
 SWIFT, ii. 38.
 —, NEEDLE-TAILED, ii. 42.
 —, WHITE-BELLIED, ii. 40.
sylvatica, *Turnix*, vii. 146.
Sylvia atricapilla, iii. 56.
 — *cinerea*, iii. 50.
 — *curruca*, iii. 52.
 — *hortensis*, iii. 54.
 — *nisoria*, iii. 60.
 — *orphea*, iii. 57.
 — *subalpina*, vii. 146.
Syrnium aluco, i. 87.
Syrrhaptes paradoxus, iv. 97.

Tadorna casarca, vii. 81.
 — *cornuta*, vii. 83.
tarda, *Otis*, v. 1.
 TAWNY OWL, i. 87.
 — PIPIT, iii. 127.
 TEAL, vii. 94.
 —, AMERICAN BLUE-WINGED, vii. 100.
 —, AMERICAN GREEN-WINGED, vii. 96.
 —, SUMMER OF GARGANEY, vii. 98.
 TEMMINCK'S STINT, v. 87.
temmincki, *Tringa*, v. 87.
tengmalmi, *Nyctala*, i. 89.
 TENGMALM'S OWL, i. 89.
 TERN, ARCTIC, vi. 20.
 —, BLACK, vi. 1.
 —, CASPIAN, vi. 11.
 —, COMMON, vi. 17.
 —, GULL-BILLED, vi. 9.
 —, LESSER SOOTY, vi. 28.
 —, LITTLE, vi. 21.
 —, NODDY, vi. 29.

- TERN, ROSEATE, vi. 15.
 —, RÜPPELL'S, vii. 147.
 —, SANDWICH, vi. 13.
 —, SOOTY, vi. 26.
 —, WHISKERED, vi. 5.
 —, WHITE-WINGED BLACK, vi. 3.
Tetrao tetrax, iv. 106.
 — *urogallus*, iv. 101.
tetrax, *Otis*, v. 5.
tetrax, *Tetrao*, iv. 106.
 THICK-KNEE, v. 11.
 THRUSH, BLACK-THROATED, iii. 88.
 —, BLUE ROCK, vii. 146.
 —, GOLD-VENTED, vii. 146.
 —, MISTLETOE, iii. 80.
 —, PIED ROCK, iii. 96.
 —, SIBERIAN GROUND, iii. 89.
 —, SONG, iii. 82.
 —, WHITE'S, iii. 78.
Tichodroma muraria, ii. 116.
tinnunculus, *Falco*, i. 53.
 TIT, GREAT, ii. 97.
 TITMOUSE, BLUE, ii. 102.
 —, BRITISH COAL, ii. 104.
 —, COAL, ii. 104.
 —, CRESTED, ii. 107.
 —, LONG-TAILED, ii. 110.
 —, MARSH, ii. 106.
titys, *Ruticilla*, iii. 16.
torda, *Alca*, vi. 79.
torquatus, *Phasianus*, iv. 116.
 —, *Turdus*, iii. 94.
torquilla, *Iynx*, ii. 12.
Totanus calidris, v. 113.
 — *flavipes*, v. 116.
 — *fuscus*, v. 118.
 — *glareola*, v. 109.
 — *glottis*, v. 119.
 — *hypoleucus*, v. 103.
 — *macularius*, vii. 147.
 — *ochropus*, v. 105.
 — *solitarius*, v. 111.
 TREE-CREEPER, ii. 114.
 TREE-PIPIT, iii. 115.
 TREE-SPARROW, iv. 44.
tridactyla, *Rissa*, vi. 63.
tridactylus, *Picoides*, vii. 145.
Tringa acuminata, vii. 147.
 — *alpina*, v. 81.
 — *canutus*, v. 95.
 — *fuscicollis*, v. 80.
 — *maculata*, v. 76, 78.
 — *minuta*, v. 86.
 — *minutilla*, v. 90.
 — *rufescens*, v. 99.
 — *striata*, v. 93.
 — *subarquata*, v. 91.
 — *temmincki*, v. 87.
trochilus, *Phylloscopus*, iii. 64.
Troglodytes parvulus, ii. 120.
trole, *Uria*, vi. 83.
 TROPIC-BIRD, vii. 147.
 TRUMPETER SWAN, vii. 147.
 TUFTED DUCK, vii. 113.
turdoides, *Acrocephalus*, iii. 34.
Turdus atrigularis, iii. 88.
 — *iliacus*, iii. 84.
 — *merula*, iii. 92.
 — *migratorius*, vii. 146.
 — *musicus*, iii. 82.
 — *pilaris*, iii. 86.
 — *sibiricus*, iii. 89.
 — *torquatus*, iii. 94.
 — *varius*, iii. 78.
 — *viscivorus*, iii. 80.
Turnix sylvatica, vii. 146.
 TURNSTONE, v. 46.
 TURTLE-DOVE, iv. 93.
 — — — —, EASTERN, vii. 146.
Turtur communis, iv. 93.
 — *orientalis*, vii. 146.
 TWIST-TAILED SKUA, vi. 74.
 TWITE, iv. 66.
 TWO-BARRED CROSSBILL, iv. 80.

Upupa epops, ii. 20.
urbica, *Chelidon*, ii. 80.
Uria brünnichi, vi. 87.
 — *grylle*, vi. 91.

- Uria troile*, vi. 83.
urogallus, *Tetrao*, iv. 101.
- Vanellus gregarius*, v. 24.
 — *vulgaris*, v. 43.
varius, *Turdus*, iii. 78.
 VELVET SCOTER, vii. 133.
vespertinus, *Falco*, i. 45.
villosus, *Dendrocopus*, vii. 145.
Vireo olivaceus, vii. 146.
virescens, *Ardea*, vii. 30.
 VIRGINIAN COLIN, vii. 146.
virginianus, *Ortyx*, vii. 146.
virgo, *Grus*, iv. 153.
viridanus, *Phylloscopus*, iii. 66.
viridis, *Gecinus*, ii. 2.
viscivorus, *Turdus*, iii. 80.
vocifera, *Ægialitis*, v. 37.
vulgaris, *Buteo*, i. 16.
 —, *Coccothraustes*, iv. 46.
 —, *Pyrrhula*, iv. 68.
 —, *Sturnus*, ii. 63.
 —, *Vanellus*, v. 43.
 VULTURE, GRIFFON, i. 77.
 —, NEOPHRON OR EGYPTIAN, i. 83.
- WAGTAIL, BLUE-HEADED, iii. 110.
 —, GREY, iii. 108.
 —, GREY-BACKED, iii. 106.
 —, GREY-HEADED, iii. 112.
 —, PIED OR COMMON, iii. 104.
 —, YELLOW, iii. 114.
- WARBLER, AQUATIC, iii. 42.
 —, BARRED, iii. 60.
 —, CETTI'S, vii. 146.
 —, DARTFORD, iii. 48.
 —, GARDEN, iii. 54.
 —, GRASSHOPPER, iii. 44.
 —, GREAT REED, iii. 34.
 —, GREENISH WILLOW, iii. 66.
 —, ICTERINE, iii. 32.
 —, MARSH, iii. 38.
 —, MELODIOUS, vii. 146.
 —, ORPHEAN, iii. 57.
 —, PALLAS'S WILLOW, iii. 72.
- WARBLER, REED, iii. 36.
 —, RUFIOUS, iii. 30.
 —, SAVI'S, iii. 46.
 —, SEDGE, iii. 40.
 —, SUBALPINE, vii. 146.
 —, WILLOW, iii. 64.
 —, WOOD, iii. 62.
 —, YELLOW-BROWED, iii. 70.
- WATER-HEN, iv. 141.
 WATER-RAIL, iv. 139.
 WAXWING, ii. 92.
 WHEATEAR, iii. 22.
 —, BLACK-THROATED, iii. 26.
 —, DESERT, iii. 28.
 —, ISABELLINE, iii. 24.
- WHIMBREL, v. 135.
 WHINCHAT, iii. 20.
 WHISKERED TERN, vi. 5.
 WHITE-BELLIED SWALLOW, vii. 146.
 — SWIFT, ii. 40.
 WHITE-BILLED GREAT NORTHERN
 DIVER, vi. 102.
 WHITE-COLLARED FLYCATCHER, vii.
 146.
 WHITE-EYED POCHARD, vii. 109.
 WHITE-FACED PETREL, vi. 134.
 WHITE-FRONTED GOOSE, vii. 60.
 WHITE PELICAN, vii. 147.
 WHITE SHEATH-BILL, vii. 147.
 WHITE-SPOTTED BLUE-THROAT, iii. 12.
 WHITE STORK, vii. 41.
 WHITE-TAILED OR SEA-EAGLE, i. 8.
 WHITETHROAT, iii. 50.
 —, LESSER, iii. 52.
 WHITE-THROATED SPARROW, vii. 146.
 WHITE'S THRUSH, iii. 78.
 WHITE-WINGED BLACK TERN, vi. 3.
 — — — LARK, iv. 12.
- WHOOPER, vii. 75.
 WIGEON, vii. 101.
 —, AMERICAN, vii. 104.
 WILD DUCK, vii. 86.
 WILLOW-WARBLER, iii. 64.
 — — —, PALLAS'S, iii. 72.
wilsoni, *Gallinago*, vii. 147.

- WILSON'S PETREL, vi. 131.
 — SNIBE, vii. 147.
 WOODCHAT, ii. 75.
 WOODCOCK, v. 58.
 WOOD-LARK, iv. 8.
 WOOD-OWL, i. 87.
 WOODPECKER, BARRED, ii. 10.
 —, DOWNY, vii. 145.
 —, EUROPEAN THREE-TOED, vii. 145.
 —, GOLDEN-WINGED, vii. 145.
 —, GREAT BLACK, vii. 145.
 —, GREEN, ii. 2.
 —, HAIRY, vii. 145.
 —, LESSER SPOTTED, ii. 10.
 —, MIDDLE SPOTTED, vii. 145.
 —, PIED, ii. 6.
 WOOD-PIGEON, iv. 81.
 WOOD-SANDPIPER, v. 109.
 WOOD-WARBLER, iii. 62.
 WREN, ii. 120.
 —, RUBY-CROWNED, vii. 146.
 WRYNECK, ii. 12.
yelkouanus, Puffinus, vii. 147.
 YELLOW-BILLED CUCKOO, AMERICAN,
 ii. 28.
 YELLOW-BROWED WARBLER, iii. 70.
 YELLOW HAMMER, iv. 26.
 YELLOW-RUMPED SEED-EATER, vii. 146.
 YELLOW-SHANKED SANDPIPER, v. 116.
 YELLOW WAGTAIL, iii. 114.
Zonotrichia albicollis, vii. 146.









